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ABSTRACT

As the product of a mail survey, a literature search, and site visitations, this monograph examines the past, present, and future of college courses employing television as a means of instruction. The text provides historical background, a summary of criticisms, descriptions of specific course structures (both ground-breaking programs and current attempts at innovation), and recommendations for future improvements. The appendixes include interviews with educational broadcasting officials and a public television license poll. (EMH)

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COLLEGE CREDIT THROUGH TV:

OLD IDEA, NEW DIMENSIONS

a monograph by

ROBERT D. B. CARLISLE

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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PREFACE

This report on the broadcast of college-level credit courses over TV was undertaken initially as an independent study project for the Department of Speech and Theater in the School of Fine and Performing Arts at Montclair State College, Upper Montclair, N.J.

In writing it, I have drawn on a variety of sources. In the five months from February through June, 1974, inquiries went out to 57 individuals. These were men and women familiar either with non-traditional post-secondary-level study or with the open-circuit televising of college credit courses. Forty-eight of them replied, many sending supportive materials.

Most answered by mail. Others responded differently: five sent audiocassettes, and several were interviewed by telephone. These included Dr. Sidney G. Tickton, Executive Vice-President, Academy for Educational Development, and formerly Executive Director of the national study conducted by the Commission on Instructional Technology; and Mr. Franklin G. Bouwsma, Vice-President for Instructional Resources, Miami-Dade Community College, Miami, Florida, and now Chairperson of the Post-Secondary Formal Education Task Force set up in May, 1974, by the Corporation for Public Broadcasting's Advisory Council of National Organizations.

In addition, Dr. Samuel B. Gould, President of the Institute for Educational Development, was interviewed May 23, 1974, at IED headquarters in New York City. It seemed imperative to draw on his perspective as the former Chairman of the Commission on Non-Traditional Study and Chancellor Emeritus of the State University of New York. This March 31, just one

year after that Commission finished its work, Dr. Gould was named the first Chairman of the new Council for the Progress of Nontraditional Study. The most pertinent parts of my discussion with Dr. Gould can be found in Appendix I.

Others were interviewed, as well -- among them individuals involved in two of the precedents for today's college course broadcasting: NBC's "Continental Classroom," and CBS's "Sunrise Semester". The former died in 1963, a budget victim. The latter was just barely scraping through in the spring of 1974.

On June 13, 1974, a visit to the Maryland Center for Public Broadcasting added dimension to a view of a public TV open-learning venture. In 1971, this statewide agency formed the Maryland College of the Air. Dr. Frederick Breitenfeld, Jr., the Center's Executive Director, and Richard W. Smith, Director, Development Projects, were asked for their insights on the uses of open-circuit TV to distribute credit courses, as well as for a list of the problems they met in starting this educational program. A condensation of the interviews with them has been included as Appendix II.

Recognizing that public TV has grown to national proportions, I considered it important to survey the licensees to see whether they are presently broadcasting credit courses. A four-question postcard poll was sent to 149 broadcasters on April 9 and 10, 1974. Over the next month, 144 returned the completed form. The summary of this brief survey comprises Appendix III.

Some 60 other sources have been probed, along the way. However, this project was not just a traditional academic exercise. Instead, it was

something of a sentimental journey. As a newcomer to public TV, back in 1962, I was called on to produce "adult telecourses," some of them bearing college credit, at what was then WNDT in New York City (now redesignated WNET/13). That period of frenetic activity, and later days in the State University at New York's new Educational Communications office, may give this report a flavor that is other than academic. Remembering all the incessant work involved makes it hard to be coldly clinical about this area of activity.

Those experiences were followed, in turn, by a second-generation effort over the past nine months, during which Statton Rice and I co-directed studies for WNET/13 and the Massachusetts State College System. The big question before both agencies: how to use broadcast TV to expand college-level learning opportunities for adults who will not, or cannot, get to a campus for classes.

When I first began to produce college-credit courses for TV 12 years ago, there was only threadbare evidence that society was crying for this service. In the past five years, however, a shift has begun. With each passing month, the commitment to using TV and other media for nontraditional college-level education is increasing. The many clues from which this report is pieced together suggest that, at long last, the day of "College TV" may be at hand.

September 25, 1974

Robert D. B. Carlisle
Montclair, New Jersey

INTRODUCTION

TV: America's Miracle Whip medium. Over 25 years it has oozed into almost every pore of American life. Spellbound, people have laughed, squirmed, gaped, even cried at its spectacles. But rarely have their minds been given a chance to go to college through TV. There have been choice exceptions, of course, but how many remember them? And anyway, who wants to get up daily at 6:30 in the morning to take a course?

The fact is there has been an almost malignant neglect of this program category. Why? For one thing, TV managements like consistent winners that draw big crowds. College TV can't promise that. But there's another reason, buried in the chronicles of American higher education since World War II; this facet of the neglect, amounting to a subtle but conscious repudiation, hardly represents one of the college educator's prouder accomplishments.

Time, though, is dimming memory of past rejections, and at the same time is plowing up a new need. The purpose of this paper is to triangulate for that need and the sprouts of response, as well as to bow to the brave efforts of yesteryear on which new ventures must build.

At the start, consider a bit of history. This is that the technology of TV has been available for education's use for more than 40 years -- vestigial at first, but here, nonetheless. The University of Iowa tried out visual broadcasting in 1931. Two years later, Iowa's Professor Edwin B. Kurtz, bent on trying "a new means of furthering education," conducted a synchronized broadcast over WSUI and W9XK. At 7:15, January 25, 1933, two artists performed a scene from a play. Twenty-six years afterward, Kurtz recalled:

"The vampire had had its first blood;
the monster would work, and well, too,
for education."[1]

Kurtz's hyperbole fits. For too many educators, TV has been the dark at the head of the stairs, the intruder in their dust, a Caliban to be caged, or banished.

Now the drums of nontraditional study say that change is in the wind. Rather than being allowed to slink home for a trial stay, eyes heavy-lidded with sedation, Kurtz's monster is getting an escort home, *not* because TV learned all the answers in its years of apprenticeship but because higher education needs the vampire today, as it never has before.

* * * * *

Before throwing out the first ball, some boundaries have to be limed on the field. Our *sole* concern here is with broadcasting college-level credit courses over standard TV. In this approach, students watch a series on the Very High Frequency channels (2 through 13) or on the Ultra High Frequency ones (14 through 83) on their home sets. Or they could follow their course on a receiver where they work, or in some learning center.

Narrowing the focus this way does *not* mean that the paper recommends "TV only". Later pages will speak about the need for *flexibility*. That becomes a key word.

Realistically, limiting the scope to standard broadcast TV shunts aside certain TV-related alternatives -- like *closed-circuit television* (CCTV). As its label suggests, CCTV transmits TV signals in a closed system. Dormitories, student lounges, or classrooms are wired to a central engineering core; TV sets in those rooms are the only receivers capable of picking up the system's signal. No open broadcast is involved,

although outside broadcasts could be picked up from the air and fed into the system.

For years, CCTV has served education well. In a recent count, 118 state universities and land-grant colleges out of 148 replying to a survey were using closed-circuit TV.[2] Typical of these:

** At Michigan State University, an 11-channel system transmitted 324 courses to 68,155 students in 1973, enabling them to earn 56,960 credit hours, or 10 percent of the Lower Division total.[3]

** The Pennsylvania State University built its CCTV linkage in 1952. In continuous use ever since, it has recently been upgraded into a broadcast-quality color operation.[4]

While not the subject here, closed-circuit TV cannot be lightly dismissed. For one thing, it has exposed literally thousands of students over two decades to instructional TV. As adults today, they may well have a relaxed feeling about receiving further televised instruction at home.

The more youthful *cable television* is a cousin of CCTV. A master antenna on a prominent land feature captures open-broadcast TV signals, then pipes them through a cable directly to an individual's home. The resident "subscribes" by paying a monthly fee. In return, he receives a technically strong signal, and, with the latest equipment, 20 or more program choices. Cable TV will be brought up again here.

Then one should identify and set aside a third option -- *Instructional Television Fixed Service (ITFS).* This is a special brand of local-area broadcasting incompatible with standard TV; that is, ITFS broadcasts cannot be picked up on home TV without an expensive converter. Still, as a kind of "closed" system, ITFS effectively delivers education to special audiences.

** In the Norman Topping Instructional Television Center, at the University of Southern California, an $825,000 4-channel ITFS apparatus enables USC to serve industry and government just in the Los Angeles area. Employees go to "class" without leaving their plant, and if they want, can question their USC professor through FM radio transmitters.[5]

Beyond these TV transmission options, there are media like radio, the video cassette (a prerecorded TV program packaged in a sealed container the size of a book), the computer, the telephone, and the oldest of them all, the book. While open-circuit TV gains the greatest emphasis in this report, present thinking and expanding practice make it clear that no conclusions can overlook these other devices. They too can share the teaching load.

* * * * *

"But can TV instruct as well as a classroom teacher?" This arthritic question has an amazing tenacity, even though the widely respected Godwin C. Chu and Wilbur Schramm dealt it a solid blow, back in 1968, with their opus "Learning From Television: What the Research Says".

Just as readily, one might ask how well today's professor teaches, at all times and in all places. George Bonham, the urbane, erudite editor of *Change*, visited a Liberal Arts college and asked a "gifted and talented" department chairman what was the college's specialty.

"We specialize in boredom," the professor told Bonham. And, added the latter, "He was only half joking."[6]

x

Teaching in general -- with or without media -- is another issue beyond the scope of this paper. Still, one cannot sidestep the acknowledgement that TV, the bellwether of latterday teaching implements, continues to give some sober-minded academics the shivers. They keep on challenging its ability as a teacher. And with today's stern commitment to project evaluations, the likelihood is that they will be doing so for years to come.

In a 1971 breed comparison, Dr. Lynne S. Gross, Associate Professor of Broadcasting at Long Beach City College, in California, decided to weigh two TV courses against the same ones taught on-campus in the traditional way. Some 8,000 students had enrolled for "very heavily publicized" TV credit courses on "History of Mexico" and "Health Education". A comparison of grades between TV and campus students showed no significant difference. In the history, 18 percent of the TV watchers got a "B". So did 18 percent of those who signed up for the regular campus course. Some 26 percent on the TV side received a "C," while 25 percent of the campus enrollees earned "C," too. Withdrawals ran noticeably higher among the TV registrants. This was "not unexpected," says Dr. Gross, "considering the ease with which students were able to enroll."

Of further interest, availability of the TV courses and the heavy drum-beating for them "did not significantly reduce" enrollments in the parallel courses on campus. Students especially liked the convenience of taking the course through TV at home. And its modes of presentation appealed to them. But they *did* want greater individual guidance.[7]

So the research goes on. And so it surely will -- a little skepticism will always be healthy. Of more direct concern to this report, the educational environment for TV usage in college-level instruction has

distinctly improved over what it was only a few years back. However, it is *not* a matter of TV's teaching far better now than it did when the late Peter Odegard came out of the University of California at Berkeley in 1962 to hold thousands of Americans captive with his "American Government" series on NBC's early-morning "Continental Classroom". Nor, for that matter, will many ever teach more effectively on TV than Sir Kenneth Clark when he first led American viewers on a grand tour of Western "Civilisation," in 1970.

Today, the surge toward nontraditional study has reminded administrators and educators that TV *is* an option. Even more important, this surge has generated a *context* in which TV and other media can be utilized more fully as what James W. Armsey and Norman C. Dahl call "things of learning".[8]

* * * * *

"Nontraditional study," "open learning," "external degree" -- increasingly these terms have whirred around educators' heads in the past few years. Call it what you will -- and nontraditional study (NTS) seems to carry the day -- the phenomenon has penetrated the bastion of higher education. And, as might happen for the insider when an armor-piercing shell slams into his tank, it calls for adjustments.

NTS is neither easy to codify nor new. It may be enough to say here that NTS is any kind of higher education system other than the age-old one in which a student enrolls for courses on a campus. NTS can take college-level learning to a student at home, or at some halfway point. And NTS uses whatever devices it can find to get its message across -- anything from very independent study, to learning centers remote from a campus, or to media packages and correspondence-course requirements.

Actually, NTS is hardly a new invention. Ever since 1836, the University of London has awarded degrees by examining students who have studied on their own, or who have learned a lot through living. Harvard, meanwhile, has used its Commission on Extension Courses for the past 60 years as a way of offering degrees to part-time students. (See Chapter III for a description of its "PACE" materials.) For decades, the United States Armed Forces Institute and the University of Nebraska (with its correspondence courses) have given individuals non-campus alternatives to the more hallowed forms of education.

Why, then, this sudden hue and cry about NTS? Chiefly because higher education finds itself staring at problems it never conceived of in those lush post-World War II years.

Symbolic of those problems, the Associated Press reported on May 27, 1974, that state and land-grant universities believe their enrollments will slip in the fall of 1974. A survey indicated an anticipated drop from 312,933 freshmen last fall to 311,192 this September. Member-institutions made this forecast even though applications rose 3.27 percent over springtime 1973.[9]

Slightly dipping enrollments, while worrisome, make up only part of the difficulty. For American higher education, wrote State University of New York Chancellor Ernest L. Boyer recently, "These are troubled times." He elaborated:

> "The generous budgets are long gone, the baby boom has peaked, and applications are tapering off. Colleges everywhere are cutting back, trimming costs, and, in some instances, grimly fighting for survival."[10]

Beyond these new realities, Dr. Boyer continued, our view of life is no longer the same. An increase in life expectancy, reduction in the work

week, rejection by young students of full-time education and a preference for part work-part study -- these social shifts instruct today's administrator to shelve the hoary concept of postsecondary learning as a "prework ritual" and, instead, view college as a resource for those from 18 to 85. Adults should be able "to weave periods of formal and informal study into the working years." And as for the elderly, in Dr. Boyer's words,

"We have Medicare for the body;
why not Edu-care for the mind?"

A chorus of similar voices has been swelling in recent times. After almost two years' work, the substantial Commission on Instructional Technology found in March 1970 that "formal education is in an important sense outmoded . . ."[11] The next year, the Carnegie Commission on Higher Education, no less prestigious, posited the major theme that "Opportunities for higher education and the degrees it affords should be available to persons throughout their lifetimes and not just immediately after high school."[12]

Then, in 1973, the Carnegie Corporation-financed Commission on Non-Traditional Study* set the tone and direction for academic change in its final report, *Diversity By Design*. It charged education to become "responsive to the world it serves or suffer from the constant danger of becoming static and lifeless."[13] Then the 28 members put their weight behind a grand design for NTS:

*Since the Commission went out of business, its Chairman, Dr. Samuel B. Gould, has opted for dehyphenating the term "nontraditional" in regular usage. Further references here to the Commission's title are obliged, however, to retain the formal hyphenated style.

> "The Commission believes strongly that non-traditional ways of learning can do much to promote full educational opportunity. Those citizens who are now unchallenged or unserved deserve more choices open to them: new curricula, new teaching methods, individualized approaches to learning, instruction scheduled at convenient times and places, different and subtler ways of measuring and assessing accomplishment, and sometimes new institutions especially designed to aid the educationally deprived and forgotten."[14]

Various august committees have been preaching parallel convictions for more than four years now. Heeding these recommendations but also sensing local harbingers, many colleges have already introduced new programs. *Change* magazine's *The Yellow Pages of Undergraduate Innovations*, published in spring 1974, has identified 3,000 projects collected by the Cornell Center for Improvement in Undergraduate Education. Of them all, only 178 involve explicit "Use of Various Media"; 30 percent of that number use TV methods in one way or another, but *only two overtly indicate open-circuit TV broadcasting* -- hardly supportive of any "brave new world" claim. Meanwhile, 292 other listings concern "Off-Campus Education," i.e., programs akin to NTS.[15] Regrettably, the head-of-a-pin brevity of each listing precludes estimating how and whether TV might shore up a project.

In very recent time, individual institutions have been courting change in different ways:

> ** Penn State's Commission on External Degree Programs reported on August 28, 1972, that "extended degree program opportunities for part-time students (are) not only appropriate but imperative for the University . . . "[16] A "University of the Air might become an inter-institutional statewide broadcast system with joint production of materials and distribution through the Pennsylvania Public Television Network."[17]

** In April 1973, Massachusetts Governor Francis W. Sargent formed a Commonwealth Task Force on the Open University. In its preliminary report of January 31, 1974, the Task Force urged formation of a "Commonwealth Open Learning Network," to "create a system of lifelong learning for all the people of Massachusetts." Beyond setting up Open Learning Centers, there should be "broader use of the existing telecommunications facilities around the Commonwealth."[18]

** The State University of New York formed a campusless Empire State College, which admitted its first students in September 1971. By July 1972, 359 were enrolled; by June 1973, there were 1,761. While broadcast TV has not been given any emphasis in Empire State's "learning contracts" with students, there seems to be no hardened defense against it for the future.[19]

With the countrywide spread of NTS activity, it should not be surprising that the organization-minded have already held a Conference on Open Learning in Higher Education. Meeting at the University of Nebraska in January 1974, some 400 educators concentrated on "the broadening of educational opportunities for those many adults who find it impractical or impossible to continue their education in the traditional manner."[20]

Two months later, the Phillips Research Foundation created the Council for the Progress of Nontraditional Study, with Dr. Samuel Gould as Chairman. Its purpose, said Dr. Gould, will be

> "to note and promote the progress of innovative approaches to education when they are appropriate alternatives to the traditional, and to identify and explore the relationship of education to the changes within society itself."[21]

Formation of the Council is certainly auspicious. But to those eager to intensify the use of TV for college courses, it should be meaningful too that Dr. Gould, beside chairing the predecessor Commission on

Non-Traditional Study, served from 1962 to 1964 as first president of what is now WNET/13, New York, the largest budgeted public TV station in the country. And during his subsequent six years as Chancellor of SUNY, a statewide "University of the Air" (see Chapter III) was televised by that institution.

So, the ambient atmosphere for extending higher education through TV seems to be changing. That great crippler of prior years -- the lack of a fitting and durable context for TV usage -- is being thwarted by a composite antidote of new need and new zest for educational resourcefulness.

* * * * *

What spark touched off the NTS electricity? In an interview in May 1974, Dr. Gould labelled at least one likely factor:

> "I think that what brought it to a focal point was the work of the British Open University, which brought international attention. Everyone suddenly became interested in what was meant by an external degree program and the whole pattern the British Open University was following. . . There seemed to be a parade of people going. . . to see what this new Open University was. I think that had a great effect on drawing the attention of the general public to what seemed to be a new approach. . ."[22]

This British innovation, the Open University, was born in early 1969. Its first students started their home-study endeavors (including half an hour each of radio and TV instruction per week) in January 1971. This past academic year of 1973-74, 37,000 men and women were enrolled; and by now, three years after the Open University's inception, 4,200 have been graduated -- 172 of them from scratch, that is, individuals who completed *all* their degree requirements through Open University courses alone.[23]

Remembering its boundaries, this paper will make no attempt to explore the beginnings of this remarkable British institution. But in Chapter IV, one section describes how certain American universities have used its home-study and broadcast materials.

Some day, education historians will be better able to weigh clinically how much the start of the Open University had to do with swinging wide the open-learning floodgates in America. These historians may also want to measure how much Chicago's TV College (see Chapter III), which has broadcast credit learning over public TV station WTTW since 1956, served as the model for part of the British home-study formula. Dr. John Taylor, former President of WTTW, and Executive Dean James Zigerell of TV College well remember the interest shown by England's Education Minister at the time, Jennie Lee, in her February 1966 visit to TV College.[24]

* * * * *

There is excitement in all this talk about NTS. Implemented broadly, NTS projects could enrich large strata of American society. But this final question has to be raised: how much *demand* is there for this innovative service, *and* for college subjects delivered by TV to one's home?

No doubt exists that "a very large number of adults" should be counted as *potential* candidates for a college degree.[25] The 1971 Census indicated that:

* 11,782,000 adults 25 or over had some college experience but no degree.

  ** Projections say this total will increase to 22,305,000 by 1990.

* 38,029,000 had not gone beyond high school.

  ** By 1990, this total should stand at 58,965,000.

* 18,601,000 had gone to high school but had not graduated.

** The forecast raises this to 21,768,000 by 1990.

In other words, 68,412,000 were potential customers in 1971 for a college degree.

In its two-year endeavors, the Commission on Non-Traditional Study set off on a tack of its own to assess "demand" among American adults. Initiating a survey, the staff asked: "Is there anything you'd like to know more about, or would like to learn how to do better?" In response, 76.8 percent said "Yes." This, interpreted the satisticians, amounts to 79.8 million men and women. Further along, the survey found would-be learners more interested in receiving credit than those already in an educational program. Only 7.9 percent of current learners (2.9 million) were working for a degree; 16.9 percent (13.5 million) of the aspiring learners would like to pursue one.[26]

So, there is a *reservoir of interest* -- as the Ford Foundation suddenly found, back in 1971. No sooner had the Foundation's Higher Education and Research Program announced a grant for a University Without Walls when it was "deluged" by inquiries from retired men and women. These adults "saw the program as an opportunity to pursue, for a variety of purposes, education previously denied them."[27]

Does this kind of interest carry over into the context of this report? That is, how do adults vote on studying through televised credit courses? During the broadcast season of 1973-74, WHYY, Philadelphia, was one of the public TV stations in Pennsylvania trying to get the answer to that, as part of a statewide survey of viewing preferences. Some 30,000 questionnaires were sent out, 5,000 came back, and 565 of these were tabulated.[28] Adults

expressed the greatest interest in drama (382), discussion of public problems (333), and debates (299). At the opposite pole, they were least interested in popular music (45), sports (67), and political candidates' speeches (82). In between, they had a temperate interest in general education (189) and college courses (145).

Then, as a further exercise, WHYY interviewed 62 men and women. The interviewer would mention a number of program types and ask if the individual considered each one essential, important, or not important; there was a further chance to express a preference for programs originated locally, or by state or national agencies. In the category of local-origin shows, respondents voted as follows:

* Serious drama: 89 percent said "essential" or "important";
* Discussions of problems: 89 percent (essential/important);
* Debates: 94 percent (essential/important);
* Formal credit education: 64 percent (essential/important);
* Vocational education: the same;
* Special programs for lawyers, teachers: 38 percent.[29]

And so, again, WHYY's viewers were giving an average grade to televised credit courses. Why so? It could be that TV education spells brain work, or too regular a commitment of time, or a return to the grays and blacks of the little red school house. Whatever the reason, perhaps it is too much to expect that adults would be as openly eager to soak up NTS as today's innovative educators are anxious to trundle it out to them. Clearly, a big messianic job has to be done in the public marketplace.

Still, there seems to be no question that a very large audience exists -- at least in theory -- for this kind of TV. Princeton's President William Bowen notes that by 1975, more than 80 million adults will be engaged in some

kind of education.[30] It is an eye-opener to apply to that 80 million the critical percentage drawn by the University of Nebraska from its survey of adult Nebraskans.[31] Some 1.7 percent said they were interested in enrolling in nontraditional credit-bearing courses. At that rate, there is a *potential national market of 1,360,000 individuals.*

For comparison, you might recall that in the era of "Continental Classroom" (see Chapter III), in the late Fifties, around 400,000 tuned in to Dr. Harvey White and his successors on the NBC network series -- but, at most, 5,000 signed up to take a single course for credit.[32] While the situation 15 years later is hardly the same, there will be many a mountain to scale, even so, before a mass of 1,360,000 adults is persuaded to sign up for TV credit courses. However, climbing conditions have rarely been better. And members of a new establishment are roping themselves together for the ascent. The evidence shows increasingly that this establishment endorses the view of Dr. Gould and his associates on the Commission on Non-Traditional Study that:

> "Non-traditional designs of education have become imperative . . . because the life patterns of modern men and women have themselves become non-traditional."[33]

FOOTNOTES

[1]Lawrence E. McKune, ed., National Compendium of Televised Education, (East Lansing: Michigan State University, 1968), Vol. 15.

[2]Ione Phillips, National Association of State Universities and Land-Grant Colleges, Letter March 19, 1974.

[3]Information Sheet, Instructional Media Center/Instructional Television Services, (East Lansing: Michigan State University, March 13, 1974).

[4]David L. Phillips, The Pennsylvania State University, Letter March 18, 1974.

[5]"Norman Topping Instructional Television Center," USC Engineer, March 18, 1974.

[6]Faculty Development in a Time of Retrenchment, by The Group for Human Development in Higher Education, (New Rochelle, N.Y.: A Change Publication, 1974).

[7]Lynne S. Gross, "A Study of Two College Credit Courses Offered Over Television by the Southern California Consortium for Community College Television," Presented to the California Association for Educational Media and Technology, 1972.

[8]James W. Armsey and Norman C. Dahl, An Inquiry Into the Uses of Instructional Technology, (New York: Ford Foundation, 1973).

[9]New York Times, May 27, 1974.

[10]Ernest L. Boyer, "Higher Education for All, Through Old Age," New York Times, April 3, 1974, Op-Ed Page.

[11]Commission on Instructional Technology, To Improve Learning, A Report to the President and the Congress of the United States, March 1970.

[12]Carnegie Commission on Higher Education, Less Time, More Options: Education Beyond the High School, (New York: The Carnegie Foundation for the Advancement of Teaching, 1971).

[13]Commission on Non-Traditional Study, Diversity by Design, (San Francisco: Jossey-Bass, 1973).

[14]Ibid., p. 7.

[15]Cornell Center for Improvement in Undergraduate Education, The Yellow Pages of Undergraduate Innovations, (New Rochelle, N.Y.: Change magazine, 1974).

[16]Commission on External Degree Programs, The Pennsylvania State University, Final Report, August 28, 1972, p. 10.

[17]Ibid., p. 28.

[18]Commonwealth Task Force on the Open University, Preliminary Report, Toward an Open Learning Network for the People of Massachusetts, (Boston: January 31, 1974), p. 15.

[19]James W. Hall, "Seeking Alternatives," Annual Report for 1972-73, (Albany: Empire State College, 1973).

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CHAPTER I

AT THIS POINT IN TIME*

When the history of TV's use for college courses is finally told, 1974 could be the Klondike year. In that case, the map most probably would spot the Mother Lode at the University of Nebraska, in Lincoln.

The big strike came on Friday, February 1. Republican Congressman Charles Thone of Lincoln announced in Washington that the National Institute of Education had approved a grant of $934,581 for the University's so-called "S-U-N" project. It was, he advised reporters, "the largest grant ever given by the National Institute of Education in the field of open learning."[1]

S-U-N**: acronym for the "State University of Nebraska," and an offspring of the University of Nebraska System. It had taken University President D. B. Varner and S-U-N Executive Director Jack McBride all of 34 months to reach that point of hearing the golden news from N.I.E. Other than the Children's Television Workshop's "Sesame Street" and "The Electric Company," no educational television project has ever had more careful, more time-consuming grooming.

As it stands now, S-U-N is far more than pure C-TV.[2] Yes, television *will* be used. But when S-U-N's first course met its first students this

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*Hereafter, C-TV will serve as shorthand for the broadcast by open-circuit TV of college credit courses, while "NTS" will represent nontraditional study.

**This and other projects will be described in more detail in Chapter IV.

fall, when they began studying "Accounting I" at home, TV was only one-sixth of the instructional load. Each of the 15 lessons is being "taught" by six modules -- study guide, a discussion carried weekly in a statewide newspaper, an audio cassette describing experiments and problems to solve, an instructional kit of study cards and other devices, part of a text, *and* a TV module of dramatized vignettes. Through an intricate instructional design process, each of these modules is dependent on the others.

Importantly, Nebraskans will not be the only ones to benefit from S-U-N. And this represents a change for the best. Even today, sharing materials between institutions is often impossible.

With S-U-N, it will be different: its materials *will* be sharable. The University has already joined sister institutions in neighboring states in taking steps to create a "University of Mid-America," a consortium intended to banish the barriers to exchanging the badly needed courseware for open learning. And chances are strong that S-U-N will supply the national marketplace, too. Expecting to have 10 courses finished by the end of 1975 and as many as 50 by 1980, S-U-N will be able, in time, to supply ample panned gold to *any* higher education institution committed to mixing contemporary design and media in the service of NTS.

* * * * *

S-U-N promises to set an enviable standard for those concerned with NTS courseware, just as the British Open University has given a basic boost to all nontraditionalists, just as "Sesame Street" has revved up the thinking of public TV people, from planners to producers and directors.

But it distorts fact to imply that S-U-N is the solitary C-TV entry today. Far from it. The catalog of new endeavors and the signs of forward

movement in C-TV, if fully itemized, would make this report much more encyclopedic than it should be. Suffice it to say that along with S-U-N's creators, many have taken the field to make something of the potential so long latent in C-TV.

Their activity has various shapes. Regional and national projects have been started. Individual public TV stations have found promising numbers of adults registering for their college credit-course telecasts. Clusters of institutions have banded together to share costs and materials. Studies have begun. However, this is no bandwagon as yet, and problems, doubts, and disinterest persist. And, of course, *nothing* happens fast in higher education. After all, it took the University of Nebraska almost three years to nail down the final increment of funding for S-U-N production, and their time line for building an inventory of courses stretches out over another six years.

Even so, as S-U-N materializes, these are just a few of the other C-TV projects already under way:

** "Man and Environment," developed mainly by Miami-Dade Community College's aggressive Instructional Resources staff, took more than two years and $400,000 to produce. The result: a 30-week, two-semester, modular, color-TV series with an intriguing array of supportive materials and options.[3]

** University of California Extension has joined with the Psychology Today Independent Study Program to offer an eight-credit "non-traditional" learning alternative titled "Psychology Today: An Introductory Course".

Its keystone: 18 TV programs assembled from a selection of prize-winning films. Registrants get a text, study materials, and self-tests.[4]

** Chicago's TV College -- at 18 the oldest of *any* ongoing C-TV project -- took a hard look at itself in January 1974. While justly proud that more than 150,000 individuals have registered for at least one of its courses, TV College officials believe the public need is shifting. They now think this facility of the City Colleges of Chicago must change, too, and concern itself less with its traditional pre-university and business courses and more with helping adults from 16 to 80 who suffer from "undereducation".[5]

** The Maryland Center for Public Broadcasting reserved 17 hours of its weekly broadcast schedule in spring 1974 for its Maryland College of the Air. Four undergraduate and three graduate courses were offered through a total of 26 broadcasts a week. After four years of patient field work, the Center has built a consortium of 17 Maryland colleges for this venture.[6]

** In July 1972, Project "Outreach" began operating in Southern California, a joint venture of the University of California, San Diego; California State University, San Diego; and Coast Community College District, Orange County. "Outreach," said its directors, would "make use of modern communications

technology to provide access to learning opportunities for students in flexible ways in multi-locations." And at the "core" of its efforts, television would become the "tool to assist in transcending campus and classroom boundaries."[7]

** With a "push" from its Task Force on Lifelong Learning, Michigan State University is planning to extend its off-campus reach. The vehicles: its TV station, WKAR, as well as its radio outlet. One pilot course was in production during the spring of 1974.[8]

** In September 1971, the Milwaukee Area Technical College began exploiting its two public TV stations for a "College of the Air". Noting a 1972-73 registration of 2,398 for seven courses, Station Manager Dr. Otto Schlaak now concludes that TV has shown itself to be an "excellent" way of reaching adults "who want to continue their formal schooling, and who are reluctant or unable to return to the campus to do it."[9]

** Penn State's decision to "open up" Continuing Education credit courses to part-time students wanting degrees has accelerated planning by the University's Correspondence Study group, along with the Division of Broadcasting. Televised instruction, they feel, could work as a "pacing mechanism to force correspondence students to complete lessons and to cut down the attrition . . ."[10] In January 1973, the Broadcasting office hired an Executive Producer to develop both credit and non-credit courses.

** Already committed liberally to closed-circuit courses, the South Carolina ETV Network began open-circuit credit course telecasts in fall 1973. Director of Education Robert E. Wood says his staff and he are devoting "75 to 80 percent" of their energies to developing C-TV.[11]

** Emblematic of the new collaborations springing up, public TV station KCET, Los Angeles, the University of California in Los Angeles, and the Los Angeles Community College District have worked up a plan for a core credit course on American politics. In June 1974, the National Endowment for the Humanities awarded this group a $75,000 grant to produce a pilot program and spell out the concept in detail.[12]

A Station Poll

While commercial TV continues 6:30 a.m. course broadcasts (see Chapter III and its report on "Sunrise Semester"), the writer considered it of greatest importance to find out how much, and in what ways, *public* TV (PTV) has gone into credit course activities. To size up PTV involvement, a survey was initiated in April 1974. There is strong likelihood that it was the shortest poll ever thrust at an over-polled industry.

In all, 149 letters containing stamped, self-addressed, return postcards were sent out.* A total of 144 stations replied. *Of them, 77 (53 percent)*

*All too aware of the unrelenting flow of surveys sent to public TV stations, Dr. Frederick Breitenfeld, Jr., Executive Director of the Maryland Center for Public Broadcasting, urged use of just a postcard. A four-question instrument was the result (see Appendix III). At least two respondents expressed gratitude for this brevity.

noted they were currently broadcasting college-credit courses. An additional 21 said they were designing and producing courses, but not broadcasting them; at least four in this group only distribute programs through closed-circuit systems. A fifth was S-U-N which was then producing toward an on-air deadline of fall 1974. Seven others commented marginally that they hope to get into C-TV in the near future.

By licensee, the breakdown of current C-TV broadcasters went as follows:

Community-licensed stations	30
University or College stations	27
State TV authority stations	9
School Board stations	7
Stations licensed to Boards of Regents or State Boards of Higher Education	4
	77

As a further indicator of broadcasters' interest in C-TV, 132 of the 144 respondents requested a summary of the survey's results.

Coincidental corroboration for the poll came from the Eastern Educational Television Network, a regional grouping of public TV broadcasters. While there was "no interest at all" four years ago in televising higher-education courses, as of mid-1974 one-half of the network's members (14 out of 28 licensees) were transmitting C-TV materials.[13]

Paralleling the vestpocket station survey, provocative reports came in about recent C-TV enrollments:

* The Southern California Consortium for Community College Television counted only a few hundred C-TV registrations per term right after its birth in 1967. This past academic year, it was registering 4,000 per course each term, and as many as 20,000 annually.[14]
* The University of Washington's station, KCTS, in Seattle, put on a telecourse called "Human Relations and School Discipline" during the academic year 1973-74. Some 800 registered -- "the largest number ever for a telecourse offering college credit" at KCTS (and the equivalent of twenty 40-student classes).[15] For Spokane residents, KSPS-TV introduced the same course, and 278 enrolled.[16]
* The Kentucky Educational Television agency shared in creation of a higher-education consortium in spring 1973. Five months later, KET's statewide network went on the air with five credit courses. Some 212 signed up for them, through five of the participating institutions. For the spring term of 1974, 516 registered, including 330 for "Human Relations and School Discipline".[17]
* A new consortium of seven community colleges in the San Francisco Bay Area invited adults to study two credit courses by TV in the spring weeks of 1974. A total of 3,500 sent in their names for "Law for the 70's" and "Family Risk Management"; they could watch at 6:30 a.m. on a commercial channel, at 3:30 p.m. on San Francisco public TV station KQED, or at 6:30 p.m. on KTEH, the San Jose public TV outlet.[18]

* In parallel, the Maryland Center for Public Broadcasting's College of the Air had its "best term yet" in the spring of 1974. Its four televised undergraduate courses drew 510 credit-seekers; its three teacher-training series, a total of 42 individuals.[19]
* On the air just since November 1972, public TV station KOCE-TV, licensed to the Coast Community College District, Orange County, California, made six credit courses available in the spring term of 1974. In response, 3,100 individuals registered, 1,015 of them for a three-credit anthropology course ("Dimensions in Culture") that cost $750,000 to produce. In its second spring on the air, KOCE-TV was devoting almost half of its schedule to C-TV.[20]
* In its first crack last fall at college credit course broadcasting through open-circuit TV, the South Carolina ETV Network attracted 131 registrants for its history of the Byzantine Empire, "Saints and Sinners".[21]

"Compared with what?" One might well ask this question as a challenge to all these registrations. To find a useful yardstick, it might help to look at some precedents.

In the case of Chicago's remarkably durable TV College, more than 150,000 individuals have enrolled in its courses over 17 seasons. Of them, 80,000 have actually enrolled for credit.[22] Previously, about 6,000 a year were registering; now it's closer to 3,000. With TV College broadcasting nine courses a year, the administration figures an average of 250 credit students per series.[23]

Then there was the first of the "Continental Classroom" series over the NBC Network. "Atomic Age Physics" was put on the air in 1958, one year after Russia's Sputnik scattered America's complacency. It was a chance for physicists the country over to catch up on what nuclear fission had done to traditional physics. Not surprisingly, 400,000 watched this million-dollar effort -- but under 5,000 registered nationwide for actual credit. By inference, most early-risers could learn what they wanted from the course without getting formal about it.[24]

Five years later, WNDT, the New York public TV station now known as WNET/13, threw itself into a concentrated effort to offer two advanced-placement credit courses over an eight-week summer period. Full freshman-level courses in American History and Calculus were produced. To give the viewer--the main target audience was high school graduates about to enter college in the fall--more options, each hour-long program was broadcast three times a day. A young man or woman could watch morning, afternoon, or evening, fitting the viewing into a job schedule or other demands.

When the dust settled, the 76-hour history series had drawn 186 credit students, and 361 more for non-credit. Calculus, meanwhile, attracted 235 credit aspirants, and 727 registered auditors.[25]

For contrast, bear in mind the total of 8,000 students enrolled in 1971 for two courses televised in the Los Angeles area, at a time when the same courses were being presented traditionally on a campus.[26] Or the 4,000 registering each term for a single course broadcast under the auspices of the Southern California Consortium for Community College Television.[27] As commercial TV head-counting goes, these figures are trivial. But they do offer a tangible contrast to some of the earlier efforts, and become an augury of what may be in store for C-TV.

The Consortium

More and more, the formation of a consortium has become an answer to some of the problems that have hobbled C-TV in the past. Institutions coming together with a common purpose can pool their energies, fiscal and otherwise. True, they may have to give up bits and pieces of autonomy, but the commitment may mean greater service for larger numbers. At any rate, during recent years, a kind of institutional "consorting" with a media twist has proliferated. These are characteristic:

* Formed in 1967, the Southern California Consortium for Community College Television qualifies as an elder among media-related combinations. On behalf of its 31 members, it acts to "design, produce, and aid by open broadcast first quality community college credit courses." Its output: two to three courses a year.[28]
* The State University of Nebraska's plan to stimulate formation of a "University of Mid-America" has as its baseboard premise a grouping of Midwestern public universities interested in sharing NTS courseware. Meetings in March and May 1974 aimed toward incorporation by fall.[29]
* Kentucky's higher education consortium, established July 17, 1973, brought together ten institutions -- eight colleges and universities, the State Education Department, and the Kentucky Educational Television agency. Potentially, 85,000 students could be reached by the 12-transmitter statewide TV network, and thousands at home, as well.[30]

* New Jersey has a new Educational Media Consortium, an association of 14 institutions authorized in July 1973. Director William B. Brennan, Jr., had hoped to put the agency to work on behalf of higher education, but more immediate needs intervened, hence "we will not be able to do so with any degree of strength for a year or so . . ."[31]
* Nineteen California State Universities and Colleges make up the California Instructional Television Consortium. As of October 1973, it became statewide in reach. The agency began producing TV courses in spring 1973, shaping them for "persons off campus".[32]

The Growth of Interest

In various ways, then, a spate of interest in the potential of C-TV has begun manifesting itself. Aside from the formation of cooperative groups, individual institutions have been intensifying their focus on nontraditional study and associated media uses.

Because they tend to be complex, the issues demand careful sifting. As one example, in May 1974 the Minnesota Higher Education Coordinating Commission formalized its "Inter-Institutional Television Feasibility Study: 1974 Update". One main concern: how to achieve better sharing of instructional resources among Minnesota's postsecondary institutions.[33]

In New York and environs, public TV station WNET/13 interviewed a dozen community colleges during October 1973 to see how its VHF broadcast signal could bolster their educational programs. The answers were positive enough to persuade the station to seek funds for a full-fledged

analysis, leading ultimately to production of pilot courseware and formation of a station-college consortium. At the same time, the Massachusetts State College System, intrigued by the potentials of televising courses to off-campus adults, commissioned studies of course production costs, use of an available commercial broadcasting complex, and setting up a center for duplicating videotaped courses.[34]

Then, on a national plane, a year-long, four-piece study was commissioned in March 1974 by the Corporation for Public Broadcasting's Advisory Council of National Organizations (ACNO). Established by the Public Broadcasting Act of 1967, CPB is charged with promoting "the growth and development of the nation's public television and radio system,"[35] a system which could become the major conveyor of C-TV. ACNO, in turn, brings together representatives of 49 national associations and organizations to guide CPB in setting various kinds of policy.

The main question in this study was: what should CPB do to support formal education? To help answer that, ACNO formed four task forces, one of them confined to Post-Secondary Formal Education. Its chairman: Miami-Dade's peripatetic Frank Bouwsma, Vice-President of Instructional Resources. His committee includes several already familiar with linking the media to NTS -- people like Dr. Samuel Gould of the Institute for Educational Development; Dr. Robert Filep, former Director of the U.S. Office of Education's National Center for Educational Technology, and now Director of the Learning Systems Center at the University of Southern California; and Jack McBride, Executive Director of S-U-N.[36] Their target is to complete recommendations to ACNO and CPB by March 1975.

Promise - With Problems

Where there may have been near-stagnation a few short years ago, fermentation is going on today in the field of C-TV. New projects, public TV involvement, increasing enrollments, consortia being born, studies beginning -- it all adds up to greater activity than credit course broadcasting has known in the past. Still, by *no* means is C-TV scot-free of problems.

Recent experience at one of the large public TV stations underscores the hazards. WETA, the major noncommercial outlet for the District of Columbia, found (as have other public broadcasters) a fall-off in use of its daytime schedule by school subscribers for instructional TV. To compensate, WETA's then Director of Educational Services, Richard T. Pioli, contacted nearby colleges. Could *they* use any of the daylight hours for college-level courses? "Prohibitive cost factors" militated against it, he found, so he tried to coax them into a consortium. At that, "political hassles revolving around course accreditation and who would teach the courses became overwhelming obstacles."[37]

Undaunted, Pioli reapproached the colleges in fall 1973 when the fuel crisis threatened to make it much harder for higher education to serve commuting clienteles. WETA was prepared to revamp "our entire daytime schedule," to suit higher education's needs. Only two "lukewarm" replies came in; just one was at all formalized.

Cost, autonomy, acceptance of course credits, faculty roles -- there, in microcosm, parade some of the most tenacious of the problems which have hemmed in C-TV. Elsewhere, similar reports surface. Some of the inherent irony is echoed in the remark of the Maryland Center

for Public Broadcasting's Executive Director, Dr. Breitenfeld, that:

> "administrators are faced with a spectrum of problems that can be eased considerably by using technology and television, and they are concentrating so hard on those problems that they are saying 'Don't bother me now with television'."[38]

In Maine, course-televising foundered some time ago. To John R. Morison, General Manager of the Maine Public Broadcasting Network, those early courses simply weren't good. The TV teaching was bad, the production, minimal. This misuse of television, says Erik Van De Bogart, Director of Education Services for the Network, built an image which "we are still attempting to live down . . ." He adds:

> "Many people in the academic community welcome this image because it gives them good ammunition in the battle to protect their various vested interests and to slow or eliminate the impact of the use of television at the university level."[39]

Net result: Maine's Network, conveyor belt for the public University of Maine, has not one credit course on the air.

Finally, there is a simple but serious difficulty endemic to *all* open-channel broadcasting: only one program can be transmitted at a time. In a typical broadcast day (on a noncommercial station) from 8:30 a.m. to 11:30 p.m., there are only so many slots for the varied programs a manager might want to air. If he carries two hours of drama, music, and documentaries from 8 to 10 p.m., then he cannot schedule a credit course in that time block. It will have to be wedged in at a different hour, one that may very well not suit the home-student's life style.

Any of those who have tried using TV to benefit adults who want course credit could testify at length about the forces that have snapped at C-TV's heels for years. Yet the horizon has the edge of dawn on it.

Palliatives and solutions *are* more attainable. This growing reality can enable the preceding C-TV collage to have more than just a fleeting life cycle and at the same time dissipate some of the stock criticisms of this kind of television.

FOOTNOTES

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[3]Frank Bouwsma, Telephone Interview April 4, 1974.

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[5]James J. Zigerell and Hymen M. Chausow, Chicago's TV College: A Fifth Report, (Chicago: Learning Resources Laboratory, City Colleges of Chicago, January 1974).

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[8]Erling S. Jorgensen, Letter April 22, 1974.

[9]Otto F. Schlaak, Letter April 17, 1974.

[10]David L. Phillips, Letter March 18, 1974.

[11]Robert E. Wood, Letter February 26, 1974.

[12]CPB Memo, V, No. 23, June 14, 1974.

[13]Howard Spergel, Audio Cassette Spring 1974.

[14]August DeJong, "Notes on Futures of Community College Open Broadcast Television," Office of the Los Angeles County Superintendent of Schools, Downey, California, n.d.

[15]NAEB Newsletter, 39, No. 8, April 22, 1974.

[16]Walter J. Schaar, Survey Return Postcard April 15, 1974.

[17]"Higher Education Consortium - Kentucky Educational Television: A Descriptive Word," January 1974; 1973-74 Fall Enrollment Report, n.d., and Higher Education Enrollment Figures, Spring Semester, 1974, February 28, 1974.

[18]Maynard E. Orme, Letter March 20, 1974.

[19]Richard W. Smith, Letter May 7, 1974.

[20]Bernard J. Luskin, Letter April 17, 1974; Forum Fifty, March 1974.

[21]Robert E. Wood, Letter February 26, 1974.

[22]Zigerell and Chausow, Chicago's TV College: A Fifth Report, January 1974.

[23]James J. Zigerell, Letter June 14, 1974.

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[26]Lynne S. Gross, "A Study of Two College Credit Courses Offered Over Television by the Southern California Consortium for Community College Television," Presented to the California Association for Educational Media and Technology, Southern Section, 1972.

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[30]"Higher Education Consortium - Kentucky Educational Televison: A Descriptive Word," January 1974.

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[32]Stuart Cooney, "Presentation to the Joint Committee on Telecommunications, State of California," March 29, 1974.

[33]NAEB Newsletter, 39, No. 10, May 20, 1974.

[34]Robert D. B. Carlisle and Statton Rice, "The Cost of Producing College Television Courses," A Study Conducted for The Massachusetts State College System, February 15, 1974; and "Public Television in the New Market for Higher Education," Summary Paper Prepared for WNET/13, April 30, 1974.

[35]Corporation for Public Broadcasting Annual Report, 1971, p. 3.

[36]CPB Memo, Special Insert, Spring 1974.

[37]Richard T. Pioli, Letter April 22, 1974.

[38]Dr. Frederick Breitenfeld, Jr., Audio Cassette Spring 1974.

[39]John R. Morison and Erik Van De Bogart, Audio Cassette Spring 1974.

CHAPTER II

JUDGES AND JUDGMENTS

The college history teacher, converted for a summer into a television lecturer, had sidled back and forth for almost an hour in front of the grasscloth-wallpapered set. The 63rd program in his 76-hour American History series was being tape-recorded. His subject: "The Lost Generation: 1914-1930".

Periodically, the director's second camera bore down on artcards of Billy Sunday flaying the Devil, Al Capone fishing, Texas Guinan posed with horse, and a series of period authors -- Dos Passos, Millay, Cummings, Hemingway, Fitzgerald. A one-minute film clip captured H. L. Mencken and George Jean Nathan together, and then, after the lecturer's wind-up, the cameras went to work on a 1920's cameo. One cameraman defocused on a wall picture of Fitzgerald. The other began playing over the hallmarks of the Twenties, as "Honky Tonk Blues" filtered out from a gramophone horn. Raccoon coat, long orange and black scarf, champagne glass, cigarette still smoldering in a tapered holder -- these, merged with a voice-over reading by the teacher, brought the program to a close. Considering that the production crew of four was doing two hour-length shows a day for eight straight weeks, and lugging all the illustrative paraphernalia from midtown Manhattan to Newark, New Jersey, for each taping, it was about all you could do to suggest an indigo mood.

This was college credit course TV, vintage 1963. Except for the style of the teacher in the flesh ("most popular lecturer on campus"),

except for the 28 artcard-mounted illustrations and two bits of film, except for the lazy swing of the camera lens through the cliches of the Twenties, it could have been done on radio, scratchy recorded voice of Billy Sunday and all.[1]

Over the years, most of C-TV has been like this -- there are those who fondly call it "radio with pictures". It's fair to say that this venerable approach is still alive today, and widespread too, aside from a few more creative and systematic uses of this highly visual medium (see Chapter IV).

On many planes, people have come to judge C-TV and have found it wanting in excitement, appeal, and value. It should hardly surprise anyone, then, that credit course broadcasting has ranked as a peon in the academic hierarchy. Harsh as they may be, however, the various judgments of C-TV ought to be listened to. For one thing, they keep persisting. And for another, it is quite possible that the clues they offer can be turned around and made to work for C-TV in this new era of nontraditional study.

* * * * *

In a word, just what is it that the critics have been saying about C-TV? And what, if anything, has been stunting its growth?

In the calculating gaze of some -- people with no particular ax to grind -- ETV has hardly laid a glove on education. New York State's Legislative Commission on Expenditure Review sent investigators into the field, then reported in July 1973 that:

> "After 20 years of use, classroom television at elementary, secondary and higher education levels is still viewed largely as a fad, luxury or frill. It has not significantly altered the traditional teacher-textbook instructional techniques."[2]

If anything, the judgment of Stephen White, Vice-President of the Alfred P. Sloan Foundation, is more acerbic. White had served as Assistant to Chairman James R. Killian, Jr., of the distinguished Carnegie Commission on Educational Television. The work of that body led in 1967 to the passage of the Public Broadcasting Act, which, in turn, created the Corporation for Public Broadcasting. As an officer of the Sloan Foundation, White wrote in a 1973 "casual paper" that:

> ". . . with very few exceptions television has had no significant effect upon the educational system, which remains with television very much what it was without it . . . Given the power of the instrument . . . its consequences for formal education have been negligible . . . (T)he educational television system could disappear overnight without any perturbation of the educational system."[3]

There is a "good deal of homework to be done," he concluded, if "one more expensive disappointment" is to be avoided in current efforts to link television with such new-fangled innovations as wall-less and "open" universities.

So, C-TV comes out being simply inconsequential in higher education's scheme of things. Various causes lie behind this. Perhaps the most fundamental is that all too often, open-circuit course broadcasting has been as welcome in postsecondary education as a sudden rash on the face of a teen-ager. Time and again it has been strapped on like excess baggage -- part of Extension, perhaps, or a tool of Continuing Education. If that's all C-TV can be within the institution, then it won't *ever* pay its way. In this day and age, it *ought* to be embedded beneath the skin of higher education, like a heart pacemaker. And until that happens, until the pressures of the new educational marketplace

force institutions to reorient their thinking, TV will continue being about as important as the no-return bottle.

It has not helped at all that higher education has come at the matter of innovation, and the uses of media and TV, from the wrong direction. A perceptive Englishman, Richard Hooper, saw this at first-hand when, as a Harkness Fellow, he toured America from 1967 to 1969 to study instructional technology. Reflecting on his trip, Hooper developed these conclusions:

* American education is vulnerable to a short innovative life cycle;
* Innovation tends to overemphasize experiment and underplay continuity of development;
* American education, just to complicate affairs, has the age-old tradition of being locally controlled;
* Innovations get glued on to existing institutions, and often are hardware-oriented; and
* The individual in charge of media usually has only modest rank in his institution's pecking order.[4]

Four years later, there was not much change in the picture when the Education Subcommittee of the Ford Foundation's Telecommunications Task Force scanned past media ventures. They too found recurring signs of misplaced emphasis. Too often, they saw, the accent has fallen on the hardware, too seldom on the educational realities. Institutions, said the Subcommittee, should start out by identifying the educational problems and needs, "and only then determining whether some of the problems could best be solved through the use of educational technology."[5]

It has not helped C-TV, further, that institutions have oftentimes slighted an absolutely critical participant: the hired hand who knows

the subject. All too often the administrator has not done right by the teacher. The ubiquitous Dr. Sidney Tickton, Executive Vice-President of the Academy for Educational Development, squeezes out the generalities and draws this distillate:

> "The whole key is that we've never really paid attention to the fact that the TV programs we are using for courses provide no advantages for the teacher (or) for faculties generally. Therefore, since it was more work and nobody was paying them for the work, faculty members frequently said: 'The hell with it!'"[6]

Fair pay for what amounts to very hard work: this is a stitch to be picked up later on.

It seems equally safe to say, however, that teachers have not always done right by C-TV. Indeed, given a chance, they have squelched it. Memory comes to mind of a time in the mid-Sixties when the economics professors of New York State were discussing a proposal to record a basic economics course on videotape, for use throughout the state. The senior gurus present, the professors from the university centers, eventually made it clear that they themselves would have no use for such a course. One of them was far more anxious to hotfoot into a studio just to experiment by himself with TV gear. At any rate, when the meeting ended, the concept was dead.[7]

One way or another, then, the teacher has done his best to cold-shoulder TV, if not actually avoid it completely. Maynard E. Orme, Station Manager of public channel KTEH-TV, San Jose, California, holds that professors "still view television with a jaundiced eye on the basis that they may lose their jobs because televised teaching would take students out of their classrooms."[8] Feeling that this is at the very

least arguable, Orme recalls Dr. Lynne Gross's survey (see Introduction, page viii) reporting that even though an awesome swarm of 8,000 individuals registered for two televised credit courses, on-campus registration for regular versions of the same courses was in no way affected.

Regardless, some teachers still feel threatened. Others are just not interested in technology. Either way, it comes out spelling "no commitment". The Massachusetts Task Force on the Open University learned about this directly when it began looking for high-quality media-recorded programs. Relatively few were available. Why? Because it costs so much to produce truly professional materials. But also, they found, because of a distinct lack of interest among academicians in turning their energies to course production.[9]

Lack of commitment: this was noted by another administrator familiar with C-TV, Edwin G. Cohen, Executive Director of the Agency for Instructional Television, Bloomington, Indiana. As far as Cohen is concerned, "the central difficulty (in C-TV) is a function of poor design, inadequate resources and limited commitment."[10]

Taken together, weaknesses in course design, resources, and commitment have resulted -- so many, many times! -- in that unholy phenomenon of C-TV called the "talking face". In other words, the professor's classroom lecture has simply been transplanted to the TV studio with minimal refurbishments. The result? C-TV gets the blame for what was probably mediocre teaching in the first place.

Paul H. Schupbach, Director of the Great Plains National Instructional Television Library, a service agency of the University of Nebraska, has seen this approach to production over a number of years of screening and

distributing C-TV programming. First and foremost, he says, it happens because the professor is "used to doing this very thing in the classroom. He prefers (it) . . ." Then, limiting TV courses to the stand-up lecture style "saves the TV facility money". Complicating matters more, the instructional television shop is often put in the hands of neophytes, who cannot "command" the faculty talent with whom they're supposed to work. ("Rank Has Its Privileges," it seems, in the university studio as well as in the Army.) Topping it all, "Professors do not want to be mediated (in terms of using props, pix, movies, stills . . .) because these things distract from them as central figures . . ."[11]

When a professor strikes the lure and agrees to do a TV course, then beware of trying to introduce a similar course from another institution! Listen to this college-based voice:

> "Our faculty designed these courses; they look upon anyone else's course as *ipso facto* inferior; it would be a terrible struggle to get them to accept materials produced by anyone else; the only way they would possibly accept it would be if they could modify the materials to suit their own needs, and this would be a tremendously time-consuming and costly process."[12]

It would be hard to count the number of times something like that has been said in C-TV's long years of the locust, something redolent of both superiority and insularity.

It may well be that the course produced by "anyone else" *is* inferior. Maybe that other telelecturer from Lesser U. is monotonous, or sways too much, or perspires, or gets too anecdotal, or meanders. But the chances are that, down deep, what is *really* at issue is that "he", the man from L.U., does not have the heavy artillery that "I" do when "I" am on stage.

Needless to say, that outlook hardly creates a hothouse environment for growing the seeds of college-course broadcasting. Paul Samuelson's basic economics textbook may be in use throughout the country; but rent someone else's TV course? Not without a "terrible struggle".

No, the environment for C-TV *hasn't* been healthy, over the years. The effect on the sapling has been the same, whether the institution refused to let TV join the club or the teacher insisted on lecturing his way through his TV show, just as he has hundreds of times in class. Entering the NTS era, we find that the "talking head" has become the MGM lion of college-course broadcasting. The kitty will start to roar for real only when the mold is broken by the likes of Jack McBride at S-U-N, Frank Bouwsma at Miami-Dade, and Bernard Luskin of the Coast Community College District. It is going to take classic products from them all to enable C-TV to square its shoulders anew, after years of scorn, neglect, and all-too-often proper criticism. Nothing less than the quality of a "Sesame Street" will do.

Appraising the sorry state of C-TV brings to mind that famous exchange after the March Hare told Alice to take some more tea:

> "I've had nothing yet," Alice replied in an offended tone, "so I can't take more."
>
> "You mean you can't take *less*," said the Hatter; "it's very easy to take *more* than nothing."[13]

For C-TV, most of the time the cup has had nothing in it. *Any* changes will be for the better.

* * * * *

Turned off, the TV camera does nothing. It occupies space and gathers dust. It's motionless. And it's only when human beings turn it on and apply to it their own strengths and weaknesses that the trouble starts. There is nothing *inherently* anti-social, anti-intellectual, or job-destructive about a sleeping chunk of electronics.

When it *is* turned on, the TV camera can be worked to incredible advantage. Dr. Alvin Eurich offers the reminder that a "nationwide broadcast of 'Hamlet' was seen by more people, in one evening, than the total number who have seen it performed since it was written!"[14] It seems beyond belief: the *bete noire* of the young scholar, Shakespeare, drawing so many televiewers into the tent!

Television, staple of American life, most assuredly can buttress contemporary higher education. It is the view of the Educational Subcommittee of Ford's Telecommunications Task Force -- in fact, they couched it as one of the two most important messages of their 1973 report -- that "prudent and sensitive" uses of educational technology could "significantly improve access to educational opportunity . . .(I)t can advance the development of openness in education . . . (And) it can engage the learner in creative experiences, in ways that traditional education cannot, so as to greatly broaden, enrich, and personalize the learning process itself."[15]

Few if any have toiled any longer in the C-TV vineyard than the Executive Dean of Chicago's TV College, Dr. James J. Zigerell. Over the years, his associates and he have set out responsibly to see what course broadcasts have meant to students. As early as 1959, they had concluded through systematic evaluations that:

> ". . . television is a thoroughly effective means of extending college opportunities to at-home students in all subject areas explored in the project."

At another point, the TV College polled its students who had gone on to regular study at a four-year college. More than 300 replied. Dr. Zigerell reports their learning just as much by TV as they did in a classroom setting, while their grades -- TV vs. classroom -- were about the same. Of sharper interest here, all seemed to feel that the TV courses were "better organized and more effectively presented than the conventionally taught courses they had taken in the colleges to which they transferred."[16]

This point helps frame a new question that ought to be asked in today's and tomorrow's planning for use of media in NTS. Perhaps we should shelve that rather tired one, "What can TV do?" Instead, believes Howard Spergel, Director of Educational Services for the Eastern Educational Television Network, we might be asking: "what is the curriculum design of the courses and what instruments that technology has to offer could best be used to accommodate the needs of the students?"[17] This element of course design, a process scarcely considered in producing that American History series described at the beginning of the chapter, is earning an increasingly important place among educational procedures. (How the managers at S-U-N apply this process will be touched on in Chapter IV.)

For Harold W. Roeth of SUNY's Empire State College, a corollary has to do with achieving the greatest possible efficiency in media usage. As Director of the College's Learning Resources Information Center, Roeth holds that "None of the media will be used successfully

until they are used efficiently . . .(E)ach medium has its uniqueness that must be exploited completely."[18] Logic suggests that intensified course design will help rather than hinder, in the search for efficiency.

Of course, it will hardly be efficient if the C-TV dynamos plunge ahead at trying to televise those subjects unsuitable for TV. Indeed, it may be more suicidal than anything else, and only activate the venom of C-TV opponents. With its need for innumerable writing samples, basic English Composition would give the course designer a tougher challenge than he deserves, far more, say, than English Literature. And a laboratory science, demanding hands-on work, would be equally difficult, although the British Open University has hedge-hopped the problem by sending registrants an economical lab kit for home-study experiments.

There is a related aspect: how important is the subject to adult students off-campus? Maynard Orme of the San Jose public TV station considers that the courses that do the best are "the ones that directly affect life styles of individuals." A new course there, "Law for the '70s," has worked well "because it gives people information about how to deal with their problems on their own without consulting outside lawyers."[19] Earnest planners may have to try more assiduously to relate their nontraditional-study curriculum decisions to *audience wants*.

Years of criticism notwithstanding, a new generation of design-conscious course makers and system-oriented processors is applying legerdemain and social awareness to the use of media for NTS. They follow in the wake of a few with a longer skein of perspective, individuals who have already arrived at a kind of positive-thinking wisdom. There is, for example, Dr. Lawrence McKune, former Director of the University of

the Air at Michigan State. In 1967, he set down some aphorisms about TV and education that work admirably today. These are among them:

> * TV uses no magic, but a competent production team -- including teachers -- might make it seem to be magic;
>
> * TV is really just a complex machine, a device;
>
> * It will transmit only the excellence which a teacher puts before it;
>
> * Being people, teachers have changed little over the centuries;
>
> * The competent communicator cannot be the medium's slave; rather he should be served by it;
>
> * Shallowness, incompetence, artifice and ignorance will very probably spell failure on TV.[20]

A fitting set of guidelines for *any* crusader. Then, operating from a slightly different vantage point, there is Jack Gould. He watched an amazing torrent of TV in his 25 years as radio-TV critic for *The New York Times*. Today, he concedes his views may be a "shade dated". But he recalls:

> "I found many of the college level entries vastly superior to some of (public TV's) reruns or the wearingly momentous doings of the (National Public Affairs Center for Television). I think there is a vast reservoir of good TV lurking in the colleges . . . The restless nature of TV as a whole may preclude the credit idea for the time being but I firmly think it could come, once there was a chance for the bug to bite the audience."[21]

However, Gould adds, C-TV "would be hard to arrange," or so a Harvard official had predicted to him. Why? "It could be a better platform than 'Meet the Press'." Those who recall Floyd Zulli's on-air magnetism

and popularity in the very first of the "Sunrise Semester" broadcasts in 1957 would be likely to agree. But then a present-day prayer should be added to this. The sooner that four-star, show-stopping lecturers start breaking down the doors of C-TV studios to get on-camera, the better it will be for those tens of thousands who are the targets of the NTS movement.

* * * * *

In 1969, a reporter for *The London Times* appraised American uses of television for higher education's missions. He concluded that "by failure of commitment and imagination from the top, America's educational needs and television's potential have barely been brought together."[22] For sure, the Sixties *were* a bad time for C-TV -- Dean Zigerell considers that a certain "malaise" infected the craft during that decade.[23]

But the curve is on the climb today. It is an important harbinger when an august body like the Commission on Non-Traditional Study sets aside corporate doubt about technology and finds, instead, that "the existing tools are ample and splendid, with more to come." More specifically, the Commission's 39th recommendation favors "Strong and systematic efforts (to) reexamine" what the technologies can do for education, along with a parallel increase in making appropriate adaptations for media uses.[24]

Dr. Eurich showed in "Reforming American Education" that he is of like mind. The modern means of communication, he wrote, could extend the reach of the superior teacher and thus inspire more students. Through these devices, instruction could be lifted into places where teachers are not available, or good ones happen to be in short supply. At the same

time, media-borne education would give students more responsibility for their own learning, hence, more *real* learning would go on. Meanwhile, teachers could switch their energies to small-group discussions and conferences with individuals.[25]

Remembering all too well the past mediocrities, some public broadcasters welcome the lift in the C-TV curve. Once a manager of a state college public TV station, and formerly Vice-President of the Corporation for Public Broadcasting, John P. Witherspoon of KCET, Los Angeles, feels "distinctly hopeful that higher education and television are in the process of rediscovering one another."[26]

When perceptive people talk of rediscovery and of the real worth of media to education, it makes absorbing copy for those who have lived with C-TV the way it was, who have experienced trial and error, small success and larger failure, institutional veto and academic repudiation. The new evidence is encouraging, and the Legion of the Long-Subdued would be right to take heart. But if C-TV of former times had its inadequacies -- and it did, and course corrections certainly have to be vectored into it -- this form of educational broadcasting should not have to stand alone before the bar of justice. Change must go well beyond how TV is to be used to blanket sizeable audiences with college credit courses. The Maryland Center for Public Broadcasting's Dr. Breitenfeld states this larger issue directly:

> "The great array of decision-makers here and there has got to realize that television is simply holding a mirror to education for us, and we cannot sit back and say, 'I told you television couldn't teach,' when what we really must face -- but are afraid to say -- is: 'I told you we haven't been teaching.'"[27]

FOOTNOTES

[1]The writer produced this series, "Rise of the American Nation," in the summer of 1963, at the Newark, New Jersey, studio of WNDT (now public TV station WNET/13), New York.

[2]Program Audit of Educational Television in New York State by the Legislative Commission on Expenditure Review, The Legislature, State of New York, July 6, 1973.

[3]Stephen White, "Instructional Television," Alfred P. Sloan Foundation, New York 1973.

[4]Gail Spangenberg, Junius Eddy, Robert Schrank, and William Sweeney, Report of the Subcommittee on Education of the Telecommunications Task Force, (New York: Ford Foundation, July 1973).

[5]Ibid.

[6]Dr. Sidney Tickton, Telephone Interview April 2, 1974.

[7]The writer attended the planning conference (circa 1966) at which the concept was discussed.

[8]Maynard E. Orme, Letter March 20, 1974.

[9]Lawrence E. Dennis, Preliminary Report of the Commonwealth Task Force on the Open University, Boston, January 31, 1974.

[10]Edwin G. Cohen, Letter April 4, 1974.

[11]Paul H. Schupbach, Letter February 20, 1974.

[12]An Inventory of Audio-Visual Instructional Materials Available for Use in Higher Education, (Cambridge, Massachusetts: Arthur D. Little, Inc., January 31, 1974), p. 6.

[13]Emily Morison Beck, ed., Familiar Quotations by John Bartlett, 14th ed., (Boston: Little, Brown, 1968), p. 744.

[14]Alvin C. Eurich, Reforming American Education, (New York: Harper & Row, 1969).

[15]Spangenberg et al, Report of the Subcommittee on Education, Ford Foundation.

[16]James J. Zigerell and Hymen M. Chausow, Chicago's TV College: A Fifth Report, (Chicago: Learning Resources Laboratory, City Colleges of Chicago, January 1974).

[17]Howard Spergel, Audio Cassette Spring 1974.

[18]Harold W. Roeth, Letter February 19, 1974.

[19]Orme, Letter March 20, 1974.

[20]Lawrence E. McKune, ed., National Compendium of Televised Education, Vol. 15, (East Lansing: Michigan State University, 1968).

[21]Jack Gould, Letter April 4, 1974.

[22]Zigerell and Chausow, Chicago's TV College: A Fifth Report.

[23]Ibid., p. 7.

[24]Commission on Non-Traditional Study, Diversity by Design, (San Francisco: Jossey-Bass, 1973).

[25]Eurich, p. 208.

[26]John P. Witherspoon, Letter April 15, 1974.

[27]Dr. Frederick Breitenfeld, Jr., Audio Cassette Spring 1974.

CHAPTER III

THE TRAIL-BLAZERS

A $40,000 fee for a professor to teach a college course on TV? Incredible -- but there was a time, in the late Fifties, when NBC was paying that kind of money for the main lecturers on "Continental Classroom," and lining up as many as seven Nobel Laureates to be guest teachers for its science courses.

There was a time, too, when people were *actually talking about* a 6:30 a.m. televised course. It was CBS's first "Sunrise Semester" series, in the fall of 1957. The subject was "Comparative Literature". Not only did *New York Times* TV critic Jack Gould find it "a refreshing and civilized hit," but also -- in days -- it was "almost impossible," Gould reported, to get a copy of the assigned text, Stendhal's "The Red and the Black."[1]

And there was a time, back in 1955, when a short-lived organization known as "META" (Metropolitan Educational Television Association) decided to have a tea party, complete with samovar, for viewers of its daytime telecasts of a Russian language course. An invitation was issued over the air, and then, as Richard D. Heffner recalls (at the time, he was META's Program Director), "hundreds and hundreds" descended on the New York site of the tea. "It was wonderful to see those middle-aged people who were watching during the day," he remembers.[2]

* * * * *

If the Seventies promise better C-TV than ever, if the Sixties infected this kind of broadcasting with a "malaise," as Dean Zigerell puts it, then the middle and the late Fifties were the years when college-course broadcasts first began to generate a little excitement.

To sharpen perspective here, it helps to recall that in 1951-52 *only two schools* were using TV for systematic instruction.[3] By 1956, some 114 institutions had signed on for course telecasts, and from then on the numbers swelled rapidly. Over the years, though, higher education has "bought" TV much less than lower levels of instruction have. McKune reports, for example, that in 1965, 19,488,625 enrollments (*not* individual students: one person might have enrolled in several courses) were recorded for primary and secondary school TV series. At the same time, postsecondary education was recording only 317,951.[4]

Still, here and there in the Fifties, colleges and universities began trying out this thing called television. The University of Washington's station, KCTS, launched course broadcasts within months after going on the air December 7, 1954. At about that time, as another case in point, it was assumed at the University of Minnesota that "TV was a logical, suitable way of giving credit courses in the home."[5] William T. Dale, now Director of Educational Technology at the Education Development Center, Newton, Massachusetts, was a Minnesota student then. He remembers that authorities soon discovered there wasn't a market for broadcast TV. Whatever "motivated adults" there might be on the periphery were soaked up by the extension program, correspondence courses, and night school. Minnesota *did* try several TV series, anyway. Interest was "fairly great," but all too often the registrants dropped out.

For some strange reason, 1956 became a benchmark year for C-TV. In '56, Harvard's Commission on Extension Courses and the noncommercial TV station in Boston, WGBH, got together on offering televised credit courses.[6] That September, Chicago's TV College went on the air, a three-year experiment that is still going today at 18. One year later, on September 23, 1957, WCBS-TV, the local CBS station in Manhattan, began transmitting "Sunrise Semester". Eleven days later, Sputnik I took off, jostling the ashes from American academicians' pipes. One of the reactions: on October 6, 1958, the NBC television network swung open the door of its "Continental Classroom". Meanwhile, META had already been offering cultural programs and courses for a year over New York commercial TV station WPIX. And other institutions were opening up shop, too.

So, in those years of the late Fifties and immediately thereafter, C-TV began to be felt as a "more than local" phenomenon, as an educational experience hurdling campus borders. Some of the endeavors of those years merit reflection. At minimun, seeing why something worked or failed may be of use in today's accelerating search for effective learning alternatives. Regrettably, the following catalog cannot do justice to *all* the ground-breakers in those formative times.

* * * * *

The "PACE" Program

PACE, the "Program for Afloat College Education," had its immediate beginnings in the early Sixties. The Navy had it in mind to offer a college education to voyaging crews of the "Polaris"-class nuclear submarines. But actually, PACE had far deeper roots, going back to 1910 when Harvard's renowned President Abbott L. Lowell decided to develop college-

level adult education for the people of Boston. Out of this concept came the University's Commission on Extension Courses; and by the time the Navy got to thinking about educating its nuclear-sub crews, the Commission had become a very solid citizen in the world of adult ed.[7]

As an experiment, the Commission produced several filmed courses for the Navy in 1960. Then, two years later, Navy officials invited the Commission to create a set of course materials equal to the first two years of a college education. If there was any emphasis, it was on Mathematics and Science, but the Commission also worked up courses in English Composition, Literature, History, Government, and Economics -- ultimately, 40 in all.

For the submariner, instruction included face-to-face teaching at American and foreign bases; texts and problems for "homework" at sea; and 16mm films -- 15 half-hours to a course. The films could go right with the sub, under the ice cap and far away. For its film faculty, the Commission lined up an extraordinary group -- among them, the eminent Harvard history professors Crane Brinton and Robert Albion. Others were signed up from Tufts, Boston University, Simmons College -- even from the State University of New York at Albany and California Institute of Technology. Did this mean that Harvard's Extension brass were uniquely devoid of that institutional-supremacy syndrome which has often inhibited C-TV's growth? Actually not. Inter-institutional cooperation is part of the Commission's credo.

On the face of it, this rather remarkable package of learning materials was designed purely for use within a closed system, that is, a sub. But the Commission offered the same courseware over TV in the Boston area. And in due course, the whole inventory of 40 courses was turned over to the non-profit National Instructional Television Center, a sister institution of

Indiana University. NIT was invited to distribute the series to *any* potential user, for open-circuit broadcast or CCTV.

Were there takers? Relatively few. NIT head Edwin Cohen points out that even though the courses were "relatively well produced . . . and carry impeccable credentials . . . they have found little acceptance". Only six of the courses were in use during the academic year of 1973-74. And the reason, adds Cohen, is that "colleges and universities generally indicate they have the television facilities and faculty to produce their own materials."[8] (Precisely because of this discouraging record, Cohen's NIT has, in his words, "not been anxious to increase our holdings of college-level materials.")

It would seem that PACE *ought* to have been valuable for more than a few institutions, equipped either with TV transmission or 16mm projectors. In Mathematics alone, PACE's eight courses run the gamut from College Algebra, through Calculus, to Boolean Algebra and Probability. In Humanities, its American Literature series might be chided for being too much "radio with pictures". Yet the man on camera, Dr. Harold Martin, formerly Lecturer in General Education at Harvard, comes through with conviction and intelligence. His quiet-toned, well-knit explanation of the literary roots of "The Scarlet Letter" compels one to listen; and there should *always* be a TV market for the effective lecturer, like him.

As an integrated package, the PACE materials might well have been ahead of their times. Completing the two-year curriculum could earn the Navy man a certificate, and also a reservoir of credits at the Harvard Extension office; those credits, in turn, could be used as down payment toward a Harvard B.A. in Extension Studies. By the time the Navy phased out PACE

in 1973, it had logged 5,903 registrations from some 4,500 servicemen. Surface-ship crews became eligible for the program in '65, and two years later, PACE had its biggest crop of registrations (992).

To Reginald H. Phelps, Director of University Extension at Harvard, the program benefited "an awful lot of men". Many sent for transcripts, and one unique soul, after taking 11 PACE courses at New London, Connecticut, was admitted to Harvard and was graduated magna cum laude in Economics.[9] PACE, then, had a special cohesiveness and texture, and an ultimate mother ship (Harvard), that other projects of the period lacked more often than not. It is unfortunate that it had to come along in the early Sixties, before institutions were being hard put to serve new non-campus clienteles, many more than distant submariners under the polar ice pack.

Metropolitan Educational Television Association (META)

If META had one distinction, it was that it existed -- all too briefly -- as a free-standing organization, neither mothered nor smothered by institution or bureaucracy. So META had *some* latitude when it began broadcasting in 1957; but then funds thinned out in 1959, and the association had nobody to fall back upon. Hence, it died.

In structure, META was a nonprofit, tax-exempt corporation chartered by the New York State Board of Regents. Its main goal: to televise credit courses and cultural programs for adults. In fact, it was the precursor of "ETV" in New York City. Richard Heffner, one energizer of META and now University Professor of Communications and Public Policy at Rutgers -- The State University in New Jersey -- had seen a special kind of market when he was teaching adults at the New School for Social Research in New York City:

> "My students were older, better, brighter, and eager. It was quite clear you needed this instrument of TV to reach them. Doing courses through television wasn't just a P.R. device. It met the real needs of real people."[10]

As Program Director, Heffner set out to beg or borrow TV teachers and academic credit for his broadcast courses. He knocked at many doors, including Hunter College. Would they make a teacher available, pay him for the extra duty (META couldn't afford it), and grant credit too? Hunter's President George Shuster agreed. Its Dr. John Stoessinger, then an Assistant Professor of Political Science and now Acting Director in charge of the Peace Research Unit at the United Nations, stepped in to teach international relations on TV. And Heffner prevailed on St. John's University to offer credit for a Russian course, taught by Katherine Alexeieff.

At the start, META had neither studio nor broadcast time. And it needed money. To produce courses, it took over a cramped basement space in a building in Manhattan. It was converted into a studio by the Carnegie Endowment for International Peace. Then Heffner persuaded commercial TV station WPIX to let him program some daytime hours paid for by the New York State Board of Regents. To cover expenses, META raised more than $750,000 from the Avalon Foundation, the Fund for Adult Education, the Old Dominion Foundation, the New York Foundation, Rockefeller Brothers Fund, and Carnegie Endowment.[11] Heffner knew the formula was finally working when hundreds showed up for his Russian-course tea party at the Carnegie Endowment building.

But META's financial crisis intensified through 1958. As early as October 1957, *Times* TV critic Gould had warned that META "must take the

public into its confidence" about its need for money. It was "running the risk of being taken for granted."[12] He was right. And by 1959, META had gone under.

META's efforts were not in vain, however. Thereafter, Heffner took a lead role in negotiating to buy commercial TV station WNTA, a VHF channel, for use as an "ETV" outlet. The efforts eventually succeeded, and the new WNDT went on the air in September 1962. And college-credit courses were right there, at 7 p.m. daily. From the start, Heffner had that objective in mind. He says: "There never was a question from the META days that when we got the new channel, we'd meet the great opportunity of providing courses. This was a basic chunk of our obligation, as far as I was concerned." Each night WNDT televised either "Russian for Beginners" ("It was so popular at META, we decided to do it again," Heffner explains.) or "You the Consumer" ("We were thinking what would be worthwhile and important, and at the same time, attractive."). The following summer, WNDT threw open its entire schedule for two advanced placement courses in American History and Calculus, playing them "back to back" in the morning, then repeating them in the afternoon and evening.

Looking back at the META and WNDT experiences, Heffner says today, with feeling: "I can't stress enough how much I regret that that kind of programming is not in the forefront of what's being offered now." In the main, it is not in the forefront at all, with spot exceptions like the new KOCE-TV in Huntington Beach, California, where C-TV takes up almost one-half the broadcast schedule (See Chapter IV).

"English -- Fact and Fancy"

If any C-TV product ever made the case for the "talking head" on camera, it is this series. Produced in 1965 by public TV station WETA in Washington, D.C., the course won a local Emmy that year for its "star," James C. Bostain, and evidently with good cause. Bostain proved that an appealing figure before the camera lens can both captivate and teach.

An in-service training course for teachers, "English -- Fact and Fancy," consists of fifteen 30-minute programs, which were "designed to help improve teaching by creating an understanding of the English language as a *social* and *behavioral* phenomenon rather than as an abstract, impersonal system devised for the 'expression of thought'."[13] So says the fact sheet put out by the distributing library, National Instructional Television. But the sheet's cover blurb gets to the point differently:

> "Many of the established traditions about language are appropriate to an Eighteenth Century state of knowledge. This series may update things by 200 years or more."

Bostain lit into his subject from that direction. WETA's former director of Educational Services Richard Pioli remembers watching the course when he was teaching school in Montgomery County, Maryland. Bostain, he says, was both "learned in the field of linguistics" and "quite a performer". With two strengths going for him, Bostain proceeded "to attack all 'the sacred cows' that have been established with regard to the English language, and he does it in a very humorously skillful way". In time, he drew blood. Says Pioli: "We have had more than one scathing letter from Latin classicists denouncing the series. That to me is an indication that it is having some effect."[14]

To Dr. Breitenfeld of the Maryland Center for Public Broadcasting, "English -- Fact and Fancy" rides home a winner. Bostain "is as compelling as a talking face as is Alistair Cooke. You come away having learned something."[15]

Because it is "still quite popular," according to Pioli, this series for teachers will remain in national distribution until 1975, and then be retired. Before then, analysts may want to look more intently at this silver needle in a haystack, to see what verities it embodies. Even without that kind of scrutiny, however, one could generalize that a good teacher is a good teacher, in P.S. #12 or under the hot lights in a TV studio. As always, the great challenge is to find that one-in-a-thousand person. Once captured, he or she will only strengthen the C-TV product of tomorrow, and earn an enduring role for the "talking head" in the midst of the intricacies of course design. Combining a poet's eye and economy of speech, the late Mark Van Doren was one of those rarities, the person who can quietly and thoughtfully compel you to *listen* to TV.[16]

"Continental Classroom"

All things considered, Sputnik I has to get the credit for breathing life into this project, the NBC-TV series which had a five-year run from 1958 to 1963. Until newcomers like "Man and Environment" and S-U-N came along, this was higher education's most extensive experiment in C-TV.

Some time after Sputnik spurted aloft on October 4, 1957, NBC's Director of Public Affairs and Education Edward Stanley was coming back from Europe. He read that New York State's Commissioner of Education,

the late James Allen, was planning a refresher course for science teachers in the state. Probable cost: $600,000. Stanley thought that "for not a great deal more than that you could reach every science teacher in the country."[17] And, he thought further, "we could do the whole damn thing".

While Sputnik may have catalyzed "Continental Classroom," two people, more than any others, made it work. Ed Stanley had the institutional punch and the moxie to argue and lead, at a level essential for a venture of this scope. Then, the late Mrs. Dorothy Culbertson, Executive Producer in the Public Affairs Department, brought further intelligence and important persuasiveness to both the critical fund-raising and direct management of the project.[18]

Assembling the series actually amounted to a kind of benevolent brokerage by Stanley and Mrs. Culbertson. At his suggestion, she talked to the Fund for the Advancement of Education about using the NBC-TV network for college credit courses. They were "excited". At almost the same time, the American Association of Colleges for Teacher Education (AACTE) approached NBC tentatively. Would it put up $25,000 to study how TV could be used to improve teacher training? "I thought it was a helluva good idea," recalls Stanley. But his vision was broader: would they be interested in something considerably bigger? Indeed they would, they said. This became vital in the funding arrangements that were to follow.

It seemed wholly apparent that NBC alone could not float the concept. And so, after appeals to the late Dr. Alexander Stoddard and Dr. Alvin Eurich, both at the Ford Foundation, Ford finally agreed to put in $500,000, a major share of the first year's expected cost. Then, following beguiling calls from Mrs. Culbertson, added increments of $100,000 apiece came in from

Pittsburgh Plate Glass, Standard Oil of California, United States Steel, A.T. & T., and others. (Ironically, A.T. & T. contributed $100,000, but charged NBC $400,000 for an academic year's use of an extra hour from 6 to 7 a.m. on the TV network system it leased to the broadcaster.)[19] As a practical matter, the funds all went to AACTE, which thereupon paid NBC for its facilities, at cost. Stanley didn't let on to his management, but the last of the donations didn't come in until September 4, 1958, just before the broadcasts were to start.

By then, the apt series title had been locked up, as an outgrowth of a conversation between Stanley and noted educator Dr. James Killian, then science advisor to President Eisenhower. "What you'd have here," Stanley explained, "would be a continental classroom." Dr. Killian liked the idea, and the coinage stuck.

On October 6, 1958, the daily broadcasts began on the NBC network. That first year, the topic was "Atomic Age Physics," a college-level course 165 lessons long. Says Stanley: "Physics was the subject that was in trouble then. Many people teaching it had received their degrees before atomic energy was invented." And the man to teach these teachers was Dr. Harvey White, Professor of Physics at the University of California at Berkeley and once an associate of Nobel Prize-winner Dr. Ernest O. Lawrence. White had the firm endorsement of Ford because he had done a film series for them. Moving in to the NBC project, he lined up a veritable "Who's Who" of American scientists as guest lecturers, individuals like Dr. Glenn Seaborg, then Chancellor at Berkeley and later head of the Atomic Energy Commission. There's probably never been another national refresher course quite like it.

If there was something else unique about the NBC series, it was how the network treated its on-camera talent. They really travelled first-class. The going wage was $40,000, which bought network reruns. Point two: the professor was given an apartment in Manhattan. Further, if he had children, they were sent to a good school in the city. And, on top of that, he could bring in assistants (White had one, at $10,000; Professor John Baxter, who taught Chemistry in the second season, had two). But, as Producer Robert Rippen remembers it, the teachers were not overpaid, "because we really drove them. I don't know how they lived through it. They had to do 130 lectures of their own in a year's time, five a week. They were under fantastic pressure."[20]

In spite of the grind, they made out because they were "pros" -- fine teachers who displayed little if any temperament (although one was so enamored of his pipe that he kept dribbling ashes down his tweeds, until the producer barred the weapon from the set). They would work from outlines, rather than from prepared scripts. White, for one, had taught so much that he "could anticipate 95 percent of the questions that would be asked of him after a lecture, and, after 30 years of teaching, he didn't miss the one-to-one relationship."[21]

NBC tried to let their talent go into the studio when they wanted. Largely, this meant afternoon sessions. A four-hour stretch of studio time allowed for camera-blocking, a dress rehearsal, and the tape-recording. (Compare that with the current studio schedule foisted on "Sunrise Semester" by its realities. See page 56.)

Once 6:30 a.m. rolled around, there seemed to be no question that people by the thousands were watching. NBC's audience-research specialists estimated

that 400,000 viewed Physics, while 600,000 tuned in to Chemistry, in the second year. But at no time over the five-year span of "Continental Classroom" did more than 5,000 sign up for actual credit in a course. Even so, to Lawrence McKune of Michigan State, that first series on Physics was unique:

> "For the first time in the history of education, 4,905 students . . . in all parts of the United States, studied precisely the same course with the same teacher at the same hour, using the same outlines and the same texts . . ."[22]

McKune's report was not all euphoria, however. He indicated what he called "inexplicable variations" in course credit. (The credit-seeker was to sign up at a cooperating college in his area.) Thirty colleges granted *no credit*; two offered two credit hours; 219, three; 37, three quarter-hours; 63, four semester hours; five, four quarter-hours; 13, five semester hours; 19, five quarter-hours; 11, six semester hours; five, six quarter-hours; and two, seven hours.[23] The era of widely accepted standards was still in the remote future.

In the second year, NBC repeated Physics at 6 a.m., then ran its new Chemistry course at 6:30 (it had to pay for the full 6-to-7 a.m. hour of network time, anyway). Physicists began watching Chemistry, and the chemists brushed up on their Physics, a neat refresher switch.

By 1960, the mathematicians were asking for a course. Ford concurred. So NBC went along. "We had to," says Stanley. "They were the main money people." This time, a new approach was tried. The first half of the year was devoted to Algebra; John Kelley of Berkeley taught three days a week, and Julius Hlavaty took the Tuesday-Thursday pair. Then, in the second "term," Frederick Mosteller, Chairman of Statistics at Harvard, carried

the main load on "Probability and Statistics," while Paul Clifford of Montclair State College did the "applications" on Tuesday-Thursday.

To Stanley, Mosteller proved to be a "wonderful teacher" who "figured you could put almost as much into 28½ minutes of TV as into a normal 50-minute lecture". Further, Mosteller began to feel that he had a "one-to-one relationship" with the student, whose attention wouldn't wander, as a result. By that particular term, as many as 320 colleges and universities were granting credit for the course. Stanley notes that "few of them were giving Probability in those days".

At that point, the Ford Foundation decided to cut off its financial support. And even though a number of corporate sponsors stuck with the project, Stanley began to feel a budget squeeze (a cutback to two TV cameras, instead of the normal three). Regardless, Stanley still managed to come up with a star performer for that fourth year, the late Peter Odegard, then Chairman of the Political Science Department at Berkeley, former President of Reed College, and warmly recommended by political scientists like Clinton Rossiter.

There was something of Arturo Toscanini in Odegard, in Stanley's view. To the assigned Director, Marvin Einhorn (now directing "Today"), Odegard was a "marvelous, gingery, spry little man (with) terrific charisma."[24] Stanley believes today that it was a "lucky break" that the fund shortage cut them back on production values (like extra slides, artwork, and film) because: "Every time we took the camera off Peter, the show sagged."

Successful? Stanley says that Odegard's "American Government: Structure and Function" had an audience of 1.5 million. The League of Women Voters, he recalls, "were convinced we did this especially for them!"

But then "Continental Classroom" folded. Why? "Money," says Stanley. "The company did lose a little, and wasn't willing to take a chance on raising some money the next year." The series budget -- it ran between $1.2 million and $1.5 million annually -- was "not a helluva lot for a network, not really". But NBC must have thought so. "American Government" was rebroadcast in the fifth year, and "Continental Classroom" ended officially on May 17, 1963.

To its producer in the first years, Bob Rippen (now Director of Instructional Television at Rutgers), the project "opened the eyes of a lot of educators to the fact that TV could be a good instrument for teaching; and the one thing we did which was important was that we made no pretense about dressing things up in so-called show-biz terms. Harvey White's TV classroom was a duplicate of his lecture hall, as closely as we could do it. Everything was honest . . ."

As for Stanley, he remembers the late Alexander Stoddard's saying that the series was "the most significant thing that happened in American education in the last 100 years". This may have been "a little broad," Stanley feels. Even so, in a time of Sputnik-induced turbulence in American education, tens of thousands had been drawn to the TV set morning after morning. Yet Stanley recognizes that C-TV *still* hasn't become an institution, and he lays part of the blame for this at public broadcasting's doorstep because its executives "largely aren't interested in doing something like this. They wish to do many of the things being done in commercial TV . . . I think they feel above this, somehow . . ."

It would be the writer's view that some public broadcasters *do* disdain C-TV. But many don't. For some, however, the same bugaboo that flattened

"Continental Classroom" has them handcuffed, too. As General Manager Richard J. Meyer of the University of Washington's KCTS explains, "The only reason we have not increased college material is money."[25]

"Sunrise Semester"

For 17 broadcast seasons, this series has appeared at 6:30 every weekday morning on CBS -- at the start just on WCBS-TV in New York and then, since 1963, on the CBS-TV network. It seems to have settled into a happy arrangement between CBS and New York University's Washington Square and University College of Arts and Science. NYU assigns administrative staff and picks course and TV teacher, while CBS tape-records and broadcasts the series that results.[26]

Like some other C-TV pattern setters, "Sunrise Semester" evolved in the mid-Fifties. At the time, Warren A. Kraetzer (now Executive Vice-President and General Manager of public TV station WHYY in Philadelphia) was Director of NYU's Office of Radio/Television, and Thomas Brophy, a former sports publicist and sometime actor, its Assistant Director. One of Brophy's assignments had been to chaperone NYU professors when they did educational and cultural programs over WNTA, a New York commercial TV station (now public TV WNET/13). Professors got all of $25 a show.

Even then, NYU had good rapport with CBS. "They liked us," Brophy recalls, "and we liked them: it was a real Tiffany operation."[27] Out of conversations between Kraetzer and Sam Cook Digges, then general manager of WCBS-TV, came the idea for a series of early-morning college course telecasts. The late William Bush Baer, then Dean of NYU's University College, gave the concept an affirmative push, and for the next year, they worked at clearing the hurdles.

One perplexity: who would ever do these live broadcasts at 6:30 a.m. (with a make-up call at 4:30)? When the discussion came around to him, Brophy had a firm answer: Floyd Zulli, Jr., Assistant Professor of Romance Languages at NYU. Brophy had already seen him work on an instructional show over WNTA. "I knew the minute he opened his mouth," says Brophy, "that he had it. He hit the long ball." And even better: "Let's face it, Tom," Zulli had told Brophy, "I loved it!"

So Zulli was picked to do "Comparative Literature 10: From Stendhal to Hemingway". Homework for the first show: the first 150 pages of Stendhal's "The Red and the Black". In days, the book was a "collector's item". CBS even bought up copies to give to clients. As for the series, Critics John Crosby of *The New York Herald Tribune* and Jack Gould of *The Times* applauded. Gould wrote:

> "Dr. Zulli knows his viewers are of the college level and acts accordingly. There is no condescension in his remarks, so often the blight of educational TV experiments . . . There's a trace of the theatrical in Dr. Zulli's delivery; carefully controlled, it should be all to the good. The teaching profession often needs to lean a bit on Actors Equity."[28]

And now, 71 courses later, "Sunrise Semester" is still going. It would be in error to say that in all respects it is going strong. It isn't. Money has begun to bedevil the series, especially since it became obliged in 1971 to be self-sufficient or fold.

Meeting her overall budget of $55,000 a year has turned out to be one of many tasks confronting Mrs. Pat Myers, who became Administrator/Producer for "Sunrise Semester" on Brophy's retirement in 1973. Mrs. Myers and two others (a producer and a secretary) are it: the entire NYU staff for the project. She reports directly to Dean Philip Mayerson of NYU's Washington

Square College. In between administrative chores, she produces one of the two series that "Sunrise" turns out each semester (total output per year: 90 to 95 hours of TV courses).

As producer, Mrs. Myers is obliged to deliver a complete package to the CBS studio -- professor, any slides and illustrations, possible guests. Then WCBS-TV takes over the taping task, and the horse race begins. One day a week, "Sunrise" grinds out three half-hour shows between 11:15 a.m. and 3:00 p.m. (in contrast to NBC's output of one half-hour show in a four-hour studio session). What if something explodes? They plow on, says Mrs. Myers. There is no time for a "redo". She confides: "I've told professors that if they make a horrendous goof, they should faint!" (Because studio time is at such a premium, it should be no surprise that producers have rarely been able to exert much creative muscle. In fact, the "record" for number of visuals in one half-hour stands at 60 -- it was an astronomy show on comets.)

And there are other restraints, such as no reruns (no money to pay teachers for this re-exposure, as required in union contracts). Nor can NYU offer the series in video cassette form because there is no money for the extra fees to the professors, even though "so many colleges have expressed an interest in it." according to Mrs. Myers.*

At the very beginning, in the days of "Zulli I" as the NYU office has labelled that era, "Sunrise" had 150 credit students in the New York area.

*It ought to be noted that NYU allows other colleges to use the TV series, as broadcast, without any charge. In the spring of 1974, 21 colleges used one course, 23 the second. Twenty-one offered credit for *both* series. They ranged from California and Oregon to Maryland and Vermont.

It was an "in" thing. At the time, a student had to pay $75 as a credit enrollee; today, that charge has gone up to $250 for a four-credit course. And the enrollment curve has sagged. There actually was a point when only five or six would go for credit via TV. Then NYU wrote "Sunrise" into its master course list. Since that time, registrations have held in and around 20 per course (in the New York area). And while Mrs. Myers viewed with consternation the Dean's decision to put on Logic in the spring of 1974, his forecast was good: the TV course drew more than 80 credit registrations.

Behind this instance lies the fact that decision-making on what series to present falls to the Dean. And probably it is just as well to have his weight committed, because professors get no release time to do their TV series. Unlike the "old days," they work their TV stint and carry a regular teaching load, too. The Dean angles for hot topics, then sets out to "twist arms" to get professors to go along with the heavier load.

"Sunrise Semester" is justly proud of its four Emmys, as it is of the fact that one course indirectly led a Midwestern woman to give $1 million to NYU for a Gallery and Art Study Center (she had watched "Iranian Culture and Civilization" in 1970, met the professor, and was persuaded by him to assign her art collection to the University). But its financial plight overshadows these gratifications. For two years, the project has subsisted mainly on annual grants of $40,000 from the Sperry and Hutchinson Foundation. (The balance: $500 a week from CBS-TV for brochures and mailings.) Then business soured for S & H. The prospects were bleak until the Foundation indicated in late spring of 1974 that it would guarantee "Sunrise" $20,000 and help NYU raise the balance. Relieved, Mrs. Myers and her associates began immediately to prepare courses for the fall of 1974 -- "History of

African Civilization" and "The Meaning of Death". All hands are hoping that the Dean's course choices still carry a little bit of genius in them.

Adversity notwithstanding, "Sunrise" has continued to eke out an existence. Various factors have helped. For one, NYU and CBS have gotten along well, both benefiting each other. Then, periodically a real winner like Floyd Zulli shows up (he came back for a fall 1973 series, and the normal mail pull of four letters per TV teacher jumped to 10 a day). It has helped, too, to have a zealous and tenacious staff -- from Emmy-winning Warren Kraetzer, to Tom Brophy, and his successor, Mrs. Myers. Perhaps most important of all, there are the faithful viewers "out there," somewhere along the network of 85 CBS-affiliated stations now carrying the series. "Sunrise" scarcely represents a high level of sophisticated course design, nor is it TV at its visual, dynamic best. Yet NYU believes that as many as one million people watch, most of them *not* for credit but rather for the kind of lift that this quiet half-hour in the light of dawn can bring them.

State University of New York's "University of the Air"

Perhaps it was "four years ahead of its time". This note ended a valedictory report written in July 1971 by the man who had directed SUNY's so-called "Univair" for almost five years, Harold W. Roeth.[29]

SUNY closed out this statewide C-TV project after the spring term of 1971. Looking back, it had:

* Operated since the spring of 1966 for 11 semesters;

* Attracted 5,169 credit registrants for its eight different broadcast courses, as well as 17,503 enrolled auditors not seeking credit, along with 1,524 who used the broadcasts on campus;

* Taken advantage of SUNY's brand new, color-capable, duplex TV network, which made it possible to deliver a simultaneous signal to the most populous centers of the state;

* Cost the State and City Universities a total of $1,167,282 (or $225.82 for every credit student), while earning the state, in return, a sum of $141,871.50 from nonmatriculated credit registrants;

* Been terminated because, to the state's Division of the Budget, it had not "satisfactorily fulfilled its objectives" or, in the 1973 judgment of the Legislative Commission on Expenditure Review, because of the familiar liabilities of "accessibility and acceptance."30

Another way of saying it is, as Roeth concluded, that it was simply ahead of its time. It is ironic that Roeth himself went on to join a considerably more innovative undertaking, SUNY's Empire State College, the institution without a formal campus, which took in its first students in September 1971, the year Univair died. In effect, the continuum of innovation was scarcely interrupted at all.

Only 26 years old this year, SUNY leapt from adolescence to manhood in the late Sixties. Its changes, marked by growth on every side, swept over the University after the arrival in 1964 of Dr. Samuel B. Gould as Chancellor. For the two prior years he had been the first President of WNDT, in New York, the present WNET/13.

Among its modernizations, SUNY decided to open up a statewide TV network, linking the public TV stations in New York's major cities. After more than two years' work, the New York Network became operational on October 2, 1967. Meanwhile, SUNY was formalizing a program of televised credit courses. This responded to a directive in the 1966 Interim Revision of the Master Plan:

> "That a University of the Air be established to produce college-level courses to be offered to the people of the State via educational television, radio, and motion picture, and to coordinate such audiovisual productions with the campuses of State University offering course credit."[31]

Was this nontraditional study? Dr. Gould recalls:

> " . . . when we started the University of the Air, we weren't even thinking of the term 'nontraditional study'. We were simply doing what I suppose many others were also -- groping for ways to reach out to more people and provide some kind of education to them in a way which didn't require more buildings and more faculty . . ."[32]

That kind of reaching meant a brand new game. SUNY was already on its way to becoming "the largest coordinated, centrally managed multi-level system of public higher education in the nation."[33] But it was being assembled out of an assortment of former state teachers colleges, universities, and community colleges, each with a resolute defensiveness and feeling of independence. Inevitably, a Central Administration project hoping to enlist local-campus support for statewide TV courses would be up against it.

Then a kink in the distribution system showed up. SUNY operated the network, and professionally; but a network means nothing without broadcast transmitters. In this case, the interconnected transmitters were licensed *not* to SUNY but to local community groups in some of the largest cities in the state. And each of those TV stations was as hotly independent as any of the SUNY campuses. That began to hurt when SUNY went shopping for a block of air time for its TV courses. In short, SUNY couldn't pick and choose; rather, it had to take what the stations were willing to give it.

Only making matters more difficult, where were the high-quality TV courses that Univair had to have? SUNY had just two on its shelf

(Astronomy, and a Latin American History series), hardly a diversified selection. A search was begun in other states. Well beyond 100 sources were checked. Forty-seven of their courses were sampled. Only 22 of them seemed worth further evaluation by faculty committees, and a mere three of the 22 successfully ran that gauntlet.

So, SUNY had two courses of its own, a third in production (Humanities), and three more from outside sources. To expand this inventory, the Univair office decided to develop another three on its own; only one was finished (German) before the project was shut down in June 1971.

At first, Univair began small. A pilot program in spring 1966 offered SUNY's two courses over public TV stations in Buffalo and Albany. In fall 1966 and spring 1967, the same courses went out over five public TV outlets in the state, and six SUNY and two City University of New York campuses agreed to grant credit for them. "CUNY" had decided to join in on the project initiated by its sister institution, the State University.

Then, in October 1967, the New York Network was switched on. Now Univair could transmit its courses simultaneously across the state. But it needed a solid block of air time. to make the course offerings more easily identifiable to adults at home, rather than deliver them in odd lots at erratic times of day or night. The only uncommitted chunk of hours the stations could make available, however, was on Saturday, from 9 a.m. to 5 p.m. And, as part of a state-authorized "station support" policy, SUNY would have to pay for that time. As a result, it cost Univair at its peak a total of $300,000 a year for air time (an average of $50,000 each for six stations), out of a full-operation budget of $555,000.[34] (The project's total annual costs peaked at $646,411 in 1968-69.)[35]

By spring 1969, seven courses were flowing out through the network and into the air over eight stations. Students could enroll at any one of 16 campuses. But in the fall of that year, the City University of New York had to withdraw from Univair. The budget bite was on. In time, SUNY crimped Univair's funds; courses and participating campuses declined. And in 1971, the University decided to switch off the project and transfer its resources to the infant Empire State College.

Even before the official post-mortem was written, Dr. Gould diagnosed the primary ailments hobbling Univair. They were accessibility and acceptance. In 1970, he said: "We need prime time if we (are) ever going to make a program like this go."[36] And most assuredly the daylight hours of a Saturday do not equal week-night evening time, except for the incredibly dedicated student. Then, added Dr. Gould:

> "The other element is to be able to get the acceptance of the courses by the various institutions that you can involve -- acceptance for credit toward a degree. This is the real problem."[37]

The response of SUNY's University Center at Binghamton proved the nature, if not the extent, of the problem. Univair had access to a two-term Humanities course produced by SUNY's Educational Communications office at the Binghamton campus. As a group, the Humanities faculty there had few peers. At least a dozen faculty members appeared on camera, including men like Aldo Bernardo, nationally prominent Dante scholar. But despite cooperation from its head office during production, that University Center would not offer the televised course to its own students on campus for credit.

Appraising the overall endeavor broadly, the Legislative Commission concluded that Univair had not lead "to a definite academic goal. It was an instructional adjunct which was neither fully accepted nor integrated into the total academic process."[38]

Two years earlier, just after the project was terminated, its departing director wrote up his own conclusions. A "major weakness," Harold Roeth saw, was that Univair had not been a complete instructional system. Leaning as heavily as it did on TV was "not much better than relying solely on lectures as the means of instruction". In time, the project tried to counterbalance this by adding language-practice records, written lessons typical of correspondence courses, and face-to-face meetings with teachers. But TV, he felt, should be seen as only one of many resources available for use in an instructional system.[39]

Further, dependence on open-broadcast delivery, with its rigorous adherence to set schedules, was restrictive. Closed-circuit, cable TV, video cassettes -- each of these should be considered as further means of distributing recorded learning materials. Then, too, there was no way for the student to have some "feedback" tie to a teacher. Students couldn't interact with tutor or lecturer -- by phone, perhaps -- and they *should* have had that option. It was something that Roeth had unsuccessfully urged.

Such a program, Roeth said, should be acceptable both to student and to institution. It must help the individual move toward a degree, if that is his goal. And it must be accepted by the college, too, as part of the learner's academic program. With Univair, "most campuses would not accept the credit earned by completion of the course until the student was matriculated at that campus. Then, and only then, would his 'outside' course work be considered toward his degree program."[40] Nor was there any guarantee that credits from Univair could be transferred to another campus, even one that had offered the course.

To aspiring nontraditionalists, Roeth offered the views tha :

1) In planning a new educational system, consider all aspects of the complete instructional system. Putting all your emphasis on one or two components -- such as TV -- can spell insignificant results, or failure;

2) Institutions trying new programs have to commit themselves to going beyond the experimental stage. And if the innovation succeeds, then they must accept it into the "mainstream" of their activity.

SUNY's Univair had set out in 1966 to serve students who were unable or unwilling to take part in regular educational programs -- the classic image of today's target participant in nontraditional study. There was no question, by 1971, that NTS was on its way, but, as Harold Roeth came to realize, the University of the Air sent aloft by SUNY was "perhaps four years ahead of its time."[41]

Chicago's TV College

Oldest of all C-TV ventures still alive, TV College makes a sturdy bridge between the past and the present-day concerns about providing more flexible learning choices for adults. Indeed, TV College is making its *own* bridge into the future, being less than satisfied that where it was five years ago is where it should remain tomorrow.

Both institutionally and conceptually, TV College has braced itself for change more than once, and to read Dean Zigerell's "Fifth Report," published in January 1974, is to see that his associates and he are hardened to it. More tradition-bound people might have thrown in the towel long since.

TV College went on the air in September 1956, one more outbreak of C-TV energy in the mid-Fifties.[42] The Ford Foundation's Fund for the Advancement of Education had given it a first-stage thrust, and the

college's efforts to televise junior-college courses to adults at home had been given three years' life. When the Ford grant ran dry in 1960, the General Superintendent of Chicago's public schools -- he was also chief administrator for junior colleges, *ex officio* -- urged that TV College be kept going through local tax dollars. So TV College continued, broadcasting its courses over public TV station WTTW (its Channel 11 had been activated September 5, 1955). In 1966, the City Colleges of Chicago (TV College is simply an extension of them) became an independent entity, answerable to its own Trustees. Ever since, in spite of tighter budgets, the television unit has had the backing of the Chancellor of City Colleges, Oscar E. Shabat.

On the manning chart, a Vice-Chancellor for Faculty and Instruction, Hymen M. Chausow, reports to Chancellor Shabat. Then, the longtime central figure of TV College, James J. Zigerell, reports to Chausow. Zigerell wears the title of Executive Dean of TV College and the Learning Resources Laboratory. And here again comes change: the TV venture is being merged into the Lab as a larger instructional unit. Ultimately, the L.R.L. will provide a "full range" of instructional services, delivering them to students through ways both old and new.

By now, Zigerell and his TV staff have run up the most impressive set of statistics in American C-TV:

* More than 150,000 have enrolled in TV courses, most taking no more than one course;[43]

* Out of the 150,000, some 80,000 have enrolled officially in TV College for credit;

* About 400 students have been awarded the A.A. degree for study entirely by TV;

* Some 2,200 students have graduated from City Colleges of Chicago, having taken an average of one semester of their course load through TV;

* About 10,000 individuals watch every program;

* Some 80 courses have been offered for credit, and most of them have been repeated in later semesters;

* Every course has a "casual" audience of 250,000 -- people who just happen to tune in to WTTW, catch an edge of a course, then watch for several sessions;

* Some 4,100 inmates of three correctional institutions have signed up for TV courses, and 300 of them have gone on to receive the A.A. degree.[44]

In times past, TV College has televised as many as nine courses in a semester, and up to 20 in a school year. Hence, viewers have had variety, and yet, with it, the prerequisites that an individual must take to earn an A.A. No other C-TV operation can make that claim, as yet.

Fortunately, TV College has had the kind of budget that makes it possible to keep producing at least a few new courses every year. In recent times, the annual budget has ranged from $800,000 to $850,000. Sliced in thirds, that total breaks down to: $330,000 for studio operations, about $275,000 for teachers and indirect instructional salaries, and $250,000 for staff salaries, videotape and equipment, and overhead.

The College's "product" usually consists of 30 programs, each 45 minutes long. Using WTTW's channels (a UHF sister-channel went on the air in 1965), the College schedules two lessons of a course per week, hence completing that one three-credit course in 15 weeks. Every show is broadcast at least twice. This past academic year, Dean Zigerell was chagrined to learn that because of transmitter difficulties, TV College would no

longer have access to evening broadcast hours. This was the first time in the institution's history that this had happened. As an alternative, WTTW made available Sunday mornings for TV College series.

The Dean makes it very clear that TV carries only part of the instructional burden:

> "It cannot be stressed enough . . . that the telecast is only one part of the student's activity. Much of his time is spent in reading required and suggested texts, as well as in writing the papers or completing the projects that he mails in to a TV instructor or an associate teacher."[45]

At the same time, the College is convinced that two 45-minute TV programs a week can cover all the material required in a three-credit course. Even more, officials feel that two well-planned half-hours, backed up by readings, written exercises, and either telephone or face-to-face contact with a teacher, can "more than equal" a week's work in a similar course on campus.

TV College learned long ago about "drum-beating". It spreads the word about itself through a pre-term mailing of 40,000 brochures, with another 10,000 going to libraries and schools. The prospective student then enrolls at any one of the seven campuses in the City College system, and he picks one out of four centers for his exam site (three tests a course, generally multiple-choice) and conferences. Those face-to-face sessions are optional, and draw only a sparse response. But all TV teachers also schedule phone conference hours, on the order of two hours a week.

Chicagoans pay no fee for the TV course. The less fortunate outsider, however, is charged $33.50 a credit hour, plus a $10 service fee, or a total of $110 for a three-credit course.

What the student will see is a course in which the TV teacher is quite visible, but no more than the producer can help. There's no question that budget tightness cramps the College's desire to turn out creative, visual programs; and over the years, TV College has made its full allotment of "talking face" programs. Sensitive to this, and all too aware that the talking-head school of production has "doomed closed-circuit instruction on some university campuses," TV College producers try earnestly to get their teachers to "show," not "tell". But with only one-third of the overall budget earmarked for production, this allows for "very little" non-studio elements, such as on-location film or videotape.

At an average, TV College spends $87,559 on a course of thirty 45-minute programs. This includes $11,840 for the design phase, and $75,719 for production. That works out to $2,585 per program. For comparison, Miami-Dade's "Man and Environment" cost about $36,500 per program module, while the Children's Television Workshop's "The Electric Company" estimates that *direct* production costs alone total $22,000 per half-hour show. Kentucky Educational Television figures it spent $14,375 on each TV show in its new 34-unit General Educational Development project.[46]

It is far from likely that TV College people enjoy these realities. They recognize that they have neither enough money nor staff to turn out completely "mediated" instruction. Chances are, however, that whatever they do would still require the teacher-figure. But, they say, that teacher has to learn the TV language, especially as TV College is now on the lookout for new audiences who most assuredly will not have a tolerance for "yesterday's simulated lecture hall performances".

That observation is symptomatic: tomorrow is very much on TV College's mind. Do they keep on doing the same pre-university and business courses

they've always done? Or do they aim for broader audiences? Urged by tidal change in urban life, Dean Zigerell and his staff have determined on meeting the needs of those aged 16 to 80 who are among the "under-educated". For these men and women, TV College will generate courses in basic literacy, computation, and Adult Basic Education. Further, the Zigerell office will gradually convert itself into a "full-fledged" resource center to strengthen the programs of all the City Colleges. These steps, it would seem, are in the best tradition of the modern, ever-resilient community college, and offer distinct evidence of the vitality that remains in this "old-timer" of C-TV.

* * * * *

In this cluster of C-TV projects from other years, one finds neither abject failure nor academia-shaking success. Of the four that came to a stop -- PACE, META, "Continental Classroom," and SUNY's "Univair" -- termination did not mean failure. Each made a contribution, although perhaps Univair made the least imprint of any.

As for PACE, its packaged approach and its ties to a superordinate institution gave it something special. To be sure, its TV production values were slim for the Sixties and would look even less sophisticated today. But it was a weather vane project.

META broke open the New York City scene and prepared the way for the introduction of VHF-borne ETV there in 1962. That alone was crucial. Having no parent institution, no umbilical link to higher education, it was probably preordained to have a short life cycle. WNDT arose phoenix-like from its few ashes.

As for "Continental Classroom," its introduction of nationally televised Physics, Chemistry, and Math came in a three-year span when American education realized suddenly that it had flat feet and that Russia had outhiked it. But the project still fell into an institutional vacuum, with colleges taking it or leaving it. And, anyway, arrival of the Sixties brought a new mood and the confidence-restoring declaration that we would still beat the Russians by putting the first man on the moon.

Considering the SUNY effort -- with its 11 semesters on the air, $1,167,282 spent, and only 5,169 credit registrants to show for it -- perhaps the post-mortems on Univair are the most helpful of any. It could never get prime air time for its courses. Colleges balked at accepting its credits. Even more important, though, as members of the Legislative Commission saw, it was just an "ajunct," one "neither fully accepted nor integrated into the total academic process."[47] It begins to be more and more clear that no matter *how* potent a project may be, it will always be sweating from piton to piton up a sheer rock-face, if it isn't wedged into an institution's innermost being.

"Sunrise Semester" and TV College remain. That one million watch the CBS series has to tell you something about the market for televised education. Few C-TV programs could be more straightforward radio-with-pictures, and yet one million want it! TV College has more money, and can reach out more creatively. But both enterprises would be wise to redouble their searches for a legendary Bostain, especially as well-heeled S-U-N enters the barnyard for the first time. Luckily, TV College meshes with overall Chicago City College's strategy. And it is quite prepared to switch its game, which speaks very well for it indeed -- and may even assure it of *another* 18 years.

FOOTNOTES

[1]Jack Gould, "TV: College in Pajamas," New York Times, September 24, 1957.

[2]Richard D. Heffner, Telephone Interview May 2, 1974.

[3]Lawrence E. McKune, ed., National Compendium of Televised Education, Vol. 15, (East Lansing: Michigan State University, 1968).

[4]Ibid.

[5]William T. Dale, Audio Cassette Spring 1974.

[6]The PACE Program: 1969-1970, by Commission on Extension Courses, (Cambridge, Massachusetts: Harvard University).

[7]Ibid.

[8]Edwin G. Cohen, Letter April 4, 1974.

[9]Reginald Phelps, Telephone Interview July 8, 1974.

[10]Heffner, Interview May 2, 1974.

[11]Frank E. Karelsen, "Letters to the Times," New York Times, March 31, 1958.

[12]Jack Gould, "TV: Educational Fare," New York Times, October 30, 1957.

[13]"English -- Fact and Fancy: An In-Service Telecourse of Fifteen 30-Minute Videotapes," National Instructional Television Center Fact Sheet No. 11, n.d.

[14]Richard T. Pioli, Letter April 22, 1974.

[15]Dr. Frederick Breitenfeld, Jr., Audio Cassette Spring 1974.

[16]Mark Van Doren was a compelling guest when the writer produced a series titled "Portrait in Thought" in 1964 for WNDT, New York.

[17]Edward Stanley, Interview February 26, 1974. Except where indicated otherwise, most of this section was derived from Mr. Stanley's patient reconstruction of the "Continental Classroom" project.

[18]Robert Rippen, Telephone Interview April 29, 1974.

[19]Ibid.

[20]Ibid.

[21]Ibid.

[22]McKune, National Compendium, 1968.

[23]Ibid.

[24]Marvin Einhorn, Telephone Interview May 2, 1974.

[25]Richard J. Meyer, Letter March 18, 1974.

[26]Mrs. Patricia Myers, Interview February 22, 1974. Much of this section resulted from this interview, except where otherwise indicated.

[27]Thomas Brophy, Telephone Interview June 10, 1974.

[28]Gould, New York Times, September 24, 1957.

[29]Harold W. Roeth, The State University of New York's University of the Air: A Final Report, (Office of Educational Development, State University of New York, July 1, 1971).

[30]Program Audit of Educational Television in New York State, by Legislative Commission on Expenditure Review, (The Legislature, State of New York, July 6, 1973), pp. 22-23.

[31]Ibid.

[32]Dr. Samuel B. Gould, Interview May 23, 1974.

[33]The University: Information About Your State University of New York, by the State University of New York, February 1974.

[34]Harold W. Roeth, Television in the State University of New York, (Saratoga Springs: Empire State College, November 1971).

[35]Program Audit, by New York State Legislative Commission, July 6, 1973, p. 23.

[36]Ibid.

[37]Ibid.

[38]Ibid.

[39]Roeth, A Final Report, July 1, 1971.

[40]Ibid.

[41]Ibid.

[42]James J. Zigerell and Hymen M. Chausow, Chicago's TV College: A Fifth Report, (Chicago: Learning Resources Laboratory, City Colleges of Chicago, January 1974). Much of this section has been derived from this most informative, final report.

[43]Ibid., p. 11.

[44]Ibid., p. 14.

[45]Ibid., p. 16.

[46]Statton Rice and Robert D. B. Carlisle, The Cost of Producing College Television Courses: An Assessment, A Study Conducted for the Massachusetts State College System, February 15, 1974.

[47]Program Audit, by New York State Legislative Commission, July 6, 1973.

CHAPTER IV

THE NEW BREED

> "The contents of this binder could lead to an unprecedented expansion of the influence of your institution . . . I challenge you to examine the enclosed material without feeling the impact and the potential of this genuine innovation in education . . . The course is far more than a school year series of program lessons. It is a total television learning system."[1]

This merchandising bombast tops a thoroughly professional packet of publicity materials describing Miami-Dade Community College's two-semester C-TV course, "Man and Environment". It reverberates through the covering letter signed by Franklin G. Bouwsma, Miami-Dade's Vice-President for Instructional Resources.

Under the circumstances, Miami-Dade's adopting the ways of the publicist may be condonable. In the past, colleges have abjured this technique. Instead, C-TV has often buried its night light under a dense bushel.

Not any more. This is a day of different approaches and more vigor in the college telecourse crowd, a day of a new breed. This one "Man and Environment" letter symbolizes the changes -- unbridled marketing assertiveness, energy pouring out of a community college rather than a four-year institution, emphasis on the "total television learning system," national availability of product, signature by an instructional resources advocate whose rank of vice-president gives him an in-house stature seldom enjoyed by predecessors elsewhere. This isn't to say that "Man and Environment"

wins across-the-board. It has its detractors. But what would you expect at a time when C-TV is entering the national amphitheater of learning, after wasting away for so long in summer stock?

Lumping together a few of today's projects -- once again, it is impossible to cite *all* the worthy undertakings -- one can spot differences between them and the C-TV of old:

* No longer are projects involving TV invariably remote from higher education's mainstream.

  ** In two projects considered here -- the British Open University and S-U-N -- the TV component is a significant part of an academic plan, and is carefully woven into the fabric of that plan.

* No longer is the TV program just a broadcast version of a professor's standard lecture.

  ** Sophisticated design techniques are being exercised. Typical: the 20-step process developed by S-U-N for building its multi-faceted courseware.

  ** At the same time, the "talking face" has not been banished, but is a partner with illustrative inserts, from computer animation to a scene from "The Tragical History of Dr. Faustus".

* No longer is TV the only instructional component.

  ** The student has more chance to interact with a teacher figure. Typically, Maryland's College of the Air sets up scheduled times when the home viewer can phone an instructor.

  ** The variety of components is widening -- mail-in essays, self-quizzes, records, audio and video cassettes, textbooks, computerized feedback to tell students how well they're getting along, and even a home lab kit for each student (part of the British Open University materials).

* No longer are TV courses suitable for just a local market.

  ** Following in the steps of projects like Chicago's TV College, managers of newer undertakings design

their product for regional, if not national, use.

* No longer are TV productions nickel-and-dime propositions.

** C-TV materials are at cost levels like "Man and Environment's" $400,000, S-U-N's top of $635,000 per course, and the Coast Community College District's $750,000 for its anthropology series.

* More and more, consortia are being formed to share in the procedures and costs of creating new materials.

* No longer are institutions thinking only of standard, term-length courses. Some agencies are considering shorter C-TV series -- perhaps no more than 12 half-hours, which concentrate on fewer concepts.

* A new kind of entrepreneur is on stage -- individuals like Bouwsma; Dr. Bernard J. Luskin, seeming man-of-all-work in the Coast Community College District in Southern California; and Jack McBride, the mainspring of S-U-N.

** These are not Quixotes. They have a more-than-local view, yet are hardened to academic rigors, as well as bent on achieving what one of Luskin's ventures encases in its name, "Outreach".

Of course, *none* of these changes can happen simply. Nor, critically, will they ever be cheap. This reality was voiced by someone who would know -- the Vice-Chancellor of the British Open University, Dr. Walter Perry. "Don't go into this if you want to save money," he warned California educators. Don't go into the "vast expense" of developing instructional materials, he explained, if appropriate products exist elsewhere, or can be adapted effectively.[2]

Not all would agree unreservedly. The New York State Legislative Commission, reflecting on the short life of SUNY's Univair, concluded that "there is no doubt that the medium (TV), when properly used, can lessen overall educational costs". The Commission determined that campus TV (a

near-cousin of C-TV) has shown increasing output, while costs have stabilized -- in short, a "favorable" cost/output ratio.[3]

However, in reviewing a sample of the newer projects, one has to look at them from directions other than clinical cost effectiveness. Some of the projects are too new to have built a cost-benefit record. In time, that information will come. Meanwhile, can these undertakings get out there and do something for deserving men and women only scantily served before?

British Open University

If its formulation helped fire up the current nontraditional study movement, then this review of contemporary C-TV should first see how "OU" materials have fared in America. The fact is that some of them have already been in use in American higher education for two years.

This wholly new British institution, the Open University, admitted its first students in January 1971, after two planning years. It was not very long before the pressure was on to sell OU materials in the United States. The institution was expensive: Walter Perry's associates were spending the equivalent of $300,000 to develop all the materials for a three-credit course. American dollars could help offset this cost. And so, by August 1971, OU representatives were in America, preaching the new gospel.[4]

Of course, questions soon came up on whether and how the British components would fit into American postsecondary education. As a matter of fact, some people still doubt their *direct* applicability. In March 1974, a consultant to OU, Dr. Charles A. Wedemeyer, Lightly Professor of

Education at the University of Wisconsin, told an interviewer it was unlikely the OU could ever be imported in its original shape. For one thing, "the government can make decisions about education there that cannot be made here," he said.[5] But he saw no bar to adapting OU ideas to education in America, even if trying to set up a nationwide university like the OU might be too iconoclastic.

As it worked out, adaptation has been the name of the game since OU merchants landed in '71. But with it all, American institutions have evidently liked the British courses and are coming back for more.

A background reminder here. In the original British concept, OU officials had in mind a University of the Air. But as it evolved, OU became a home study process.[6] The student, they assume, will average 10 hours a week on a course. Out of that 10 hours, half an hour goes into watching a weekly, open-circuit TV broadcast; another half-hour is for listening to a radio program. Most of the individual's time is taken up with reading assignments and writing papers. Establishment of more than 300 learning centers throughout England, Wales, Scotland and Northern Ireland gives each student an accessible home port for tutorial conferences, if needed.

This has been the pattern in Britain. Once the materials emigrated to America, the changes began. It wasn't that American institutions found the courses inadequate. On the contrary, according to Arthur D. Little, Inc., educators here were quite laudatory. Content seemed to be excellent. From its late-1973 field survey, ADL concluded that OU materials are "by far, the most popular open university courses . . ."[7] But there are problems, nonetheless, such as cost, special course administration, and the need to

modify some of the materials to increase their relevance for American students.

What American teachers had to work with was an inventory of courses averaging 33 units apiece, scarcely like staid British university education. Rather, OU made a new curriculum, with emphasis on interdisciplinary choices that "are in no traditional catalog in England."[8] In Humanities, as one example, you would encounter such diversified study units as "The Yorubas of Nigeria," "Which Was Socrates?," "Mendelssohn's Rediscovery of Bach," and "Is Man a Machine?" (one of eight units on Industrialisation).[9]

OU courses constructed like this first entered the American academic scene in the fall of 1972. Three universities decided to experiment with them. In New Jersey, Rutgers -- The State University -- tried the "Foundation" (introductory) courses in Mathematics, Science and Humanities. The University of Maryland chose Humanities alone. And the University of Houston used the basic courses in Science and Humanities. In *no* case were the visual elements televised. Instead, the users projected course films in study centers. Houston's clientele was on campus, meeting in an auditorium; Maryland set up 13 centers around the state; and Rutgers operated two centers, one on campus in New Brunswick, one in Newark. Through a grant from the Carnegie Corporation, the Educational Testing Service was asked to evaluate the first-year experiences at each university.

To make the record complete, a fourth university was to have been involved in the first year's trials, but in the face of greater difficulties than it had anticipated, it aborted the effort. In May 1972, San Diego State University set about preparing to use OU's Mathematics. Its Math Department "fell in love with" the material, according to the

University's project coordinator, Kenneth K. Jones of the Telecommunications and Film Department, adding that it "has to be one of the great courses ever produced."[10] The objective: to get the series in use that September, with emphasis -- unlike the other three trial-run universities -- on off-campus presentation through TV. Jones and his associates made a valiant stab at it, but it was too much, so the plan was shelved.

Behind that decision were factors that have now become part of a post-mortem appraisal. As Jones sees it, the process called for was "too fast . . . we simply could not get the word out fast enough". Further, the course was "too long" for students there, running all of 44 weeks with special materials being added by the University. Then, it would have been "too expensive . . . something like $450, where they could go to a community college around the corner and get the whole thing free in a different configuration". Finally, Mathematics was "too hard . . . We wouldn't let everybody take it. The Math faculty pegged the course at the sophomore level, and prescreened people, looking for those who had a reasonable chance of success". With less than five months available to line up a qualified class, the department fell short of what it wanted and decided on cancelling the mission. Jones' own conclusion: "We should have had a year" before starting the course.

Meanwhile, in the first year also, Salem State College in Massachusetts decided to offer Humanities. As a start, Salem State made it available as a non-credit option for off-campus adults.

Is there any doubt that universities often see the same matter differently? If so, the assignment of credit for OU-A (America) courses in that first year should scuttle the skepticism for good. Houston looked

at Humanities and said it was worth 12 hours of credit. To Rutgers, it merited 15; to Maryland, 18. Anthony Mellor, who directs American distribution of OU materials for Harper & Row, sees now that it creates "a whole issue when you try to introduce outside materials to the American credit system".

As it was in that 1972-73 academic year, 700 took the courses at the three ETS test sites, more than half electing Humanities. The response was "so positive," according to Mellor, that all four of the original user-institutions decided to run at least the same courses again in 1973-74. Rutgers and Maryland increased the number, and Salem State proceeded to offer two, making them credit options for off-campus audiences. At least four other institutions took on one course. Then, going into 1974-75, the client list changed. The four original users have continued. For various reasons, three of the 1973-74 newcomers dropped out (in one, the response had been "unsuitable"; in another, students wanted the material, but were overruled). Then, three others have come in for the first time, giving Harper & Row an actual list of eight full-course users. Any slight slippage has been "more than made up," says Mellor, by "individual adoptions," that is, sale of OU text materials to institutions for use in traditional courses. This academic year, 60 colleges and universities have bought OU books for one or more units, 30 of them institutions like Cornell, Michigan State and New York University. Overall sales are almost "100 percent" above last year's, according to Mellor.[11]

Even in the purest sense, OU education could hardly be called C-TV as the term is being used here, remembering that just *one-twentieth of a student's time* goes for the TV unit's broadcast over BBC. In America,

institutions have generally bypassed the use of open-circuit TV, perhaps feeling that it would give them less control and more administrative headaches than they needed. The only exceptions, Maryland and Houston, have worked it out with adjacent public TV stations to carry the visual units.

The fact is, as Mellor points out, that OU courses are "still primarily print-based". Even so, the British producers tried to get some mileage from the TV component. In Science, the films show how to do the lab experiments at home, or they tour an installation that the student won't have in his own backyard, e.g., a full-scale linear accelerator. In Mathematics, computer animation is flexed, and practical applications are included. Then, Technology's TV segments use industrial films to point up the practical. In some cases, the TV simply motivates. But with Science, the OU candidly urges viewers *not* to register if they cannot watch the assigned TV components. In most cases, however, it is fairly basic TV stuff and, again, just one-twentieth of the weekly load.

As for cost factors, a prospective customer may find them sobering. Buying one set of films for a Foundation course will cost $4,500, and it takes between $1,000 and $2,000 more to get open-broadcast rights. But that purchase *does* give the institution unlimited usage. Then, on top of this, there are new administrative costs. At Maryland, seven full-time employees and one half-time person had to be assigned to cope with the University's offering of five Foundation courses and one second-year sequel. In all, Maryland had 350 students. Undeniably, says Mellor, an institution "can't do it cheaply. You've got to do much more than just buy the films . . . Economy is a good reason for buying the OU materials, but *only* if you get a good number of students".

So, cost has to be counted as a real consideration for the American user. Mellor acknowledges that faculty resistance can make problems, too. But beyond these, Mellor points at another concern:

> "While a number of studies indicate people want to learn in a space-free, time-free situation, how do you in fact get them to move from that wish to actual participation? I don't know how you do that. Nowhere have we experimented yet with a widespread implementation of an open-learning situation. It's very important to be able to offer someone a degree program. That's the carrot. Then I'd dearly love to see someone create a new institution, taking everything that's available, like 'Man and Environment' and the S-U-N courses, and see if we can't implement a curriculum."

Then again, Mellor adds, one would still have the headache of "How do we get on television?" He looks forward to the day when cable TV, video cassette and video disc will be thrown into the breach, to give the student far more flexibility. Meanwhile, OU-A units are on film and that makes for at least two built-in limitations. On one hand, the "release" prints for field use are at least "fourth-generation" copies, although OU is working on upgrading the new films. Then, the other limitation has to do with the search for the ultimate in self-paced learning situations. As bright as OU-A students have to be to handle these stiff courses, it does not follow that each knows how to run a film projector for himself at a learning center. Very quickly the film could become brutalized. Obviously, having video cassettes instead of film should make a difference, in time.

There is still another stateside gremlin that OU planners didn't anticipate. For Science, the British student receives a compact kit of lab equipment (including a microscope), an admirable solution to that plague of instructional TV: how do you give the viewer-student hands-on

experience? In American usage, Houston and Maryland let registrants take the kit home with them. But at Rutgers, legal and insurance restrictions said no. One of the reasons: the kit has a hypodermic syringe in it for liquid measurements.

"Psychology Today: An Introductory Course"

The scene: a Hollywood cocktail party. Actor David Steinberg plays the "ringmaster" as the film focuses in on different vignettes. A guest tries to remember a string of phone numbers, succeeding with one because its digits are specially organized. A waitress memorizes drink orders. Then, in a kind of sportcaster's booth above the party, psychologist Donald Norman explains the information processing that has been going on. Memory expert Dr. Arthur Bornstein interprets the waitress's ability to recall the list of cocktails.[12]

The sound: a woman narrator introduces Dr. Jerome Kagan of Harvard. His general concern in this LP record on human development is the world of the infant. "It is apparent now," he explains, "that probably every sense that is present in an adult is present in some form in an infant. They're all functioning very well in a baby that is less than an hour old."[13]

The film and LP make up part of a package of learning materials assembled and now being distributed by CRM, a division of Ziff-Davis. These materials form the backbone of an eight-credit C-TV course titled "Psychology Today: An Introductory Course". During the winter semester of 1974, the course was presented over public TV station KCET in Los Angeles as a joint offering of University of California Extension and the Psychology Today Independent Study Program. In all, 435 individuals paid

$100 apiece to take the broadcast course for credit (break-even was 300 people).

The sponsors publicize the course as "non-traditional," a "thoroughly integrated" program including these elements:

* 18 half-hour TV shows.

  ** These were adapted from an inventory of 50 films produced by CRM at a unit cost ranging from $10,000 to $15,000. Psychology Chairman George S. Reynolds of the University of California at San Diego supervised the shaping of them into a form suitable for TV. Subjects run from Development and Infancy to Models of Abnormal Behavior and an interview with B. F. Skinner.

* A text: "Psychology Today: An Introduction".

  ** This 754-page book retails for $14.95 and is, according to publisher CRM Books, "the most widely used introductory psychology text in America."[14]

* Eight programmed-learning study manuals.

* Four LP records (psychotics in treatment are among "participants").

* A series of 24 self-check quizzes, and

* A progress chart.

The broadcast version of the course -- it is also available for correspondence independent study and for strict on-campus use under the direction of a supervising professor -- premiered in October 1973 over public TV station KPBS in San Diego. For the early-1974 transmission over KCET, Los Angeles, prospective students could register through any one of four U-C campuses, making out their $100 check to the Regents. Or they could charge it to their BankAmericard, thus making it a genuine credit course.

On successful completion, the student received U-C Extension credits. However, other institutional credits are certainly possible. "There is no reason," explains Susan M. Allyn, Associate Marketing Manager of CRM's project, "that the accreditation could not be that of another institution, and the University of California works with us toward that end."[15] For its part, CRM tries to make it easy for the using institution. It ships out all course materials, then supplies the tests and sees to their correction, including the final exam. After scoring, CRM forwards the individual's score to the participating institution so that it can be entered in his record.

There is sophistication, too, in the films. They differ noticeably from the ETV of old. The relatively generous budgeting per film enabled the CRM crew to swing the camera away from lecturing faces and push in on actual experiments at lab or field sites. A typical segment shows a duckling being taught to follow an object other than its mother, i.e., the phenomenon of "imprinting".

Its higher-than-customary quality gave the series a good reception in Los Angeles, according to John P. Witherspoon, KCET's Vice-President of Learning Resources, although enrollment there in winter 1974 was not particularly strong. "We were glad to have the series," he adds. "The little feedback we had was positive." Witherspoon was intrigued by the promise inherent in the somewhat unique relationship between a commercial publisher (CRM), the U-C Extension office, and the public broadcaster (KCET). "If all three of them would work at it," he says, "it could be quite interesting."[16] (In its course manual, CRM makes an overt commitment to public broadcasting as conveyor for the films, but arrangements for air time are up to the local institution.)

Younger sibling of "Psychology Today" magazine, the TV course will move into the national marketplace in January 1975. CRM is concentrating at first on 15 metropolitan areas. Realistically, in one place or another they're liable to bump up against competition -- existing TV-format psych series such as the 30-lesson course on "Human Growth and Development" produced in 1973 by Chicago's TV College, and now distributed by Great Plains National Instructional Television Library. Or it may be a TV product called "As Man Behaves," yet another psych series, this one turned out at a cost of $125,000 through initial efforts of the "Outreach" consortium in Southern California (see below). As one public broadcasting sage remarked, "There's still a lot of jockeying for position in higher education." Perhaps some redundancy is inevitable for now, albeit regrettable.

Southern California's KOCE-TV and Project "Outreach"

Educational TV has deep roots in California, and from recent evidence, the root hairs are spreading in all directions.

San Francisco educators were largely responsible for putting KQED on the air April 2, 1954, making it the third "ETV" station in the country. Soon it was feeding out adult education, if not credit courses, over TV. The KQED viewer of the mid-Fifties could have learned how to play the recorder, or type, or do speedwriting, or speak Spanish. And he might also have become adept at Japanese brush painting.

Twenty years later, the state is burgeoning with educational TV happenings. Operational since 1967, the 31-institution Southern California Consortium for Community College Television serving the Los Angeles area,

counts 20,000 individuals a year as registrants for its broadcast credit courses. Then, the separate California Instructional Television Consortium has taken on statewide proportions as of the fall of 1973, bringing into combination 19 state universities and colleges.

And there is an equally new -- and spreading -- situation just to the south of Los Angeles. Or perhaps it's more accurate to say "situations".

One fire base is lodged in the Coast Community College District, headquartered in Costa Mesa, just at the southern border of Orange County. The points should not be overlooked that a *community college* is responsible for these goings on, and that just a few individuals *can* make a difference.

For background, the District includes two institutions, Orange Coast College in Costa Mesa, and Golden West in Huntington Beach, just to the north. Dr. Norman E. Watson holds the post of Chancellor for the District. He displays no overt reservations about using TV as one means of spreading college-level education. In March of 1974 he wrote: "About 80 percent of the leisure time of the average American is spent either watching television or listening to the radio . . . What responsible institution . . . can turn its back on this potential for education and community service?"[17] Then he added:

> ". . . with the possibility of converting every household into a classroom; with the opportunity of implementing the 'learning society' by utilizing 20th century technology, it is incumbent upon us to act decisively."

From the evidence, Dr. Watson and his associates have done just that. On November 15, 1972, they opened up their one-million-watt public TV station KOCE at Golden West College. By the spring of 1974, this new outlet, Channel 50, had signed up 3,100 men and women for six broadcast

credit courses, three of them produced at KOCE. Nearly one-half of the station's broadcast schedule was made up of college courses. As KOCE's Director of Community Services James L. Cooper put it, they have created an "invisible campus".

Some 1,015 of the credit hunters had signed up for "Dimensions in Culture," a cultural anthropology offering.[18] To *Los Angeles Times* reporter Dick Adler, this series is a "jewel," one that would "rival any National Geographic special."[19] Crews brought in film footage from 35 countries, thanks to having a budget for the 30-part series of $750,000, part of it from the National Endowment for the Humanities. To build a reliable research base, the College District decided to put the films to work in three ways: (1) wholly on TV; (2) as part of a small-class curriculum; and (3) for large evening classes of 250. Analysts will then measure how much learning has taken place in each circumstance.

There can be little doubt that one chief reason so much is percolating in that District is people, and a stem-winder for sure is Dr. Bernard J. Luskin. A psychologist and computer-use planner, Dr. Luskin energetically shifts from one job label to another -- as Vice-Chancellor - Educational Planning and Development of the District, Vice-President of Community Development for KOCE, Executive Producer for a "Contemporary California Problems" telecourse, and Director of the "Outreach" Consortium of 18 colleges. He spearheads a new generation of community college people who have the right academic credentials and yet who are both aggressive and flexible about getting an unusual job done. A public broadcaster with the long view equates Luskin with Miami-Dade's Frank Bouwsma, adding that "both are really on the track of something -- we'd all be better off if they succeed".

Two years old as of July 1974, Luskin's "Outreach" embraces C-TV all the way. Its declared purpose: "to make use of modern communications technology to provide access to learning opportunities for students in flexible ways in multilocations" -- a textbook subdefinition of nontraditional study.[20] And at the core of "Outreach," television is seen as "a tool to assist in transcending campus and classroom boundaries".

Drawing on a grant from Title I of the Higher Education Act, the planners brought together three institutions under the "Outreach" banner -- U-C San Diego, California State in San Diego, and the Coast Community College District. As time went on, they broadened the membership to involve *all* public higher education institutions in both San Diego and Orange Counties. Director Luskin and his associates devoted their first year to planning the eventual "joint use of faculty, staff and production facilities" in making TV credit courses. Since mid-1973, the project's energy has flowed into actual C-TV production.

Luskin's own series under the "Outreach" umbrella has to do with "Contemporary California Problems" -- more precisely, aging, sexism, racism, resources and energy, and on down a list that ends with education. To conceive this course, he assembled 70 faculty members and 50 community agency personnel into a "modular design team."[21] Their goal: 20 TV programs, a course syllabus and audio cassettes. By June 1974, two authors had been picked from each of the module teams. These 20 writers then started working with the series producer/writer to spell out the various modules. Barring major upheaval, Luskin hopes to finish the course by summer 1975, then broadcast it that fall over KOCE and KPBS, San Diego.

Meanwhile, San Diego State, another link in the consortium, is

moving forward with its telecourse, "Biosphere and Biosurvival". This too should be done by the summer of 1975 for use as a C-TV learning option. Procedurally, in no case will credit be granted by the "Outreach" consortium. Instead, the student will receive credit from the institution at which he registers.

In these first ventures, "Outreach" members have worked as catalysts. Their spark and pilot funding made possible KOCE's psychology series, "As Man Behaves". Maybe the costs of production came subsequently from the Coast Community College District alone; but, explains Luskin, "the series would not have come to pass had the pilot not come into existence."[22]

At the same time, "Outreach" has been building bridges between Orange and San Diego Counties. Bi-county administrative and curriculum committees were set up to produce more C-TV. One outcome: Coast Community College District and Fullerton College cooperated on a sewing series. And, to cement the trend, "Outreach's" Board has been altered to include directors from all public colleges in both counties.

Beyond merely improving communication between Southern California educational institutions, "Outreach" will be trying to narrow a gap all too familiar in prior C-TV enterprises. Luskin explains: "Our biggest problem now is that aside from what we can make ourselves, other quality television courses just don't exist. We can pick up a couple, mostly from places like Chicago Television College, but to build up any kind of a solid, varied curriculum we mostly have to start from scratch."[23] Seemingly that prospect has not been a stymie.

In fattening up the inventory, Luskin and his co-workers will be exploring in a land of new techniques. They will be operating (as have

the British Open University, S-U-N and other recent converts) with advance-party design teams -- teacher, instructional technologist, media technologist and information specialist bonded together. They will be experimenting with new delivery procedures and combinations. TV will still be important to them. But so will computer, radio, telephone feedback, postal delivery and face-to-face contact.

The new materials coming from this Orange County energy source are more than likely to be high-cost items. To Bernard Luskin, the expenditure will be worth it:

> ". . . because the number of students who will benefit from participation in quality educational courses will be significantly greater than the number who are bored or turned away as a result of being forced to participate in unrealistically low-budget, unimaginatively designed courses which are ill-conceived and do not do justice to the subject matter content around which they are built."[24]

In other places, individuals are pushing along parallel trails on projects of similar sophistication. Inevitably it will only be a matter of time before people like Dr. Luskin punch through the undergrowth and link up with those on adjacent paths. Above all, these human catalysts are pragmatic -- and they know the immense job to be done is bigger than any one institution can undertake.

"Man and Environment"

It would be hard to imagine a C-TV project that had more going for it at the beginning than "Man and Environment". Here was a national issue, emotionally supercharged. Here was a huge community college scouting for new ways to educate adults about that issue. And here was

a central figure at the college, determined to build a C-TV course to do that job.

People like Barry Commoner had preached about the threats to human survival since the early Sixties. But it took time for the message to penetrate; a few oil slicks here and there, and by Earth Day, April 22, 1970, *everybody* was worried about the myriad pollutions. Miami-Dade Community College -- with 40,000 students it lays claim to being the largest in the nation -- could spot the problem as well as any institution and decided that it should respond. It was the kind of challenge that the college's Vice-President for Instructional Resources, Frank Bouwsma, seems to relish.

Right away he had a special pollution to contend with: any number of colleges were set on doing just what Miami-Dade had in mind. Each one intended to produce its own environment course. Bouwsma's reaction: "Why don't we all do it together and share the product?"[25] And he proceeded to assemble all those willing to talk the language of sharing. Out of this grew what he calls an "ad hoc content-oriented" consortium.

At workshops starting in May 1970, representatives of 40 (eventually narrowed to 20) postsecondary institutions joined forces. They began talking about concepts, then about the modules that would give the course a special "elasticity". More than two years later, educators and conservationists were still being consulted because, says Bouwsma, there's no "omniscience" at Miami-Dade.

What Miami-Dade *did* have, however, was the determination to finish the journey. And when other colleges in the consortium hesitated about chipping in to fund production, Miami-Dade bit the bullet and paid for the job itself. Supposedly the other institutions would become users anyway.

Actually, five of them signed on as buyers when the final assortment of materials was ready. It took about 20 months and $400,000 in production money to arrive at that point, and a final definition of the completed learning system as:

> ". . . a 30-week, two-semester or three-quarters open or closed-circuit, modular, full color TV series with correlated materials."[26]

Over television, a 30-minute film or tape documentary is to be presented weekly throughout the two terms. Miami-Dade went to some length to make the programs display environmental conditions around the world, not just in Florida. These broadcast units, in turn, tie in to chapters in the Prentice-Hall textbook, "Man and Environment". (Because it was allied with a commercial publisher familiar with clearances, Miami-Dade was able to work its way through the copyright thicket, a hazard which often deters the small-gauge producer.)[27]

The instructional designers propose that each week, along with the broadcast of the documentaries, a college present a live or taped TV or radio panel discussion on the topic just covered. This panel might immediately follow the broadcast or be scheduled later in the week, and a "public phone-in" could be encouraged, to give viewers a chance to aim questions at panelists.

While the textbook's chapters match up with the documentaries and other printed materials, the sequence, according to Miami-Dade's instructions, "is modular for complete freedom of arrangement by school or faculty member."[28] The accompanying study guide represents extensive field testing among 1,400 students. Typically, the guide covers basic concepts, study suggestions, questions to think over, and a bibliography.

As still another wrinkle, the designers have introduced an assessment aid called Response System with Variable Prescriptions (RSVP). The student starts into this process by answering questions on a multiple-choice quiz, one for each module. Fed into a computer, the quiz produces a quick indicator of where the student stands at that moment; and, as a postscript, individualized learning suggestions may be offered.

Miami-Dade is scarcely reticent about stressing what it considers the substance and importance of this learning system. Produced with "nation-wide input," involving "relentless self-examination and consultant analysis," the series, according to the promotional brochure, is "an educational package that could come from perhaps no other source except Miami-Dade."[29]

Soaring verbiage aside, "Man and Environment" has already managed to earn its keep at the college. Against its original cost of $400,000, the institution finally went into the black this fall.[30] Dollar returns have come from outside users and from a $15-a-student charge-back system applied to Miami-Dade's own Open College, which delivers instruction in Miami on an external basis. For every student it registers, Open College is charged $15 by Miami-Dade.

As of spring 1974, the course had been on five times. The first exposure in January 1972 drew 1,414 students -- "a real blow," says Bouwsma, because they'd only expected 200. Then the curve dipped to 859 registrants, and down the next time to 646. Bouwsma believes that usage at Miami-Dade will "flatten out" at about 500 per term. To date, some 4,626 have enrolled at the College, which grants six credits for completion of the two-term course.

Then, beyond the local scene, Miami-Dade has sold or rented the series to 33 colleges and educational institutions; six more are using it in the academic year of 1974-75. These numbers are deceptive: one "sale" can incorporate a number of institutional users. In Florida alone, 24 community colleges are subscribing this fall, but Miami-Dade counts them as a single using agency. Institutions can buy "Man and Environment" for $10,000 per semester (no ceiling on enrollment) for a three-year period. Or they can purchase it for $200 plus $15 for each enrolled student, per semester, with a minimum of 200 registrants. Rental is also possible, but that limits playback to closed-circuit systems.

Aware of swirling social, political and environmental change, Miami-Dade expects its property to last about four years. Some of the material has already aged, and the college is reworking it. At the same time, staff members have been bringing on-line a Spanish-language version, "the first college credit, Spanish-language course in a subject area."

To be sure, not all potential users have been captivated by "Man and Environment". Television educators in Maryland rejected it simply because there was "nothing in it."[32] Even so, if C-TV *does* move off dead center in the Seventies, people like Frank Bouwsma should share in the laurels. Getting individuals from 20 institutions to cooperate in developing a modular, multimedia course for national marketing takes doing of a magnitude seldom seen in the early days of C-TV.

Behind the smoke screen of press-agentry encircling "Man and Environment" there is more than a wisp of logic:

> "Colleges and universities which have never seriously considered open-circuit television as a means of survival or of expanding their service and influence far beyond physical

> plant limits may find 'Man and Environment' the prestige vehicle they need for lasting first impressions on campus students, television college students and casual TV viewers."[33]

Academicians might shudder at this kind of touting. It may be that adults long inured to similar back-to-back proclamations over commercial TV will be more tolerant, *if* the subject coincides with their concerns and needs, and *if* the materials have the Cecil B. DeMille quality to back up the hyperboles. And there's the catch: certainly the producer has to put out, or be accused of flimflamery. This is something that long-starved C-TV can do without.

The University of Nebraska's "S-U-N" Project

As first President of SUNY, Executive Director of the Ford Foundation's Education Program, and Acting President of Stanford, Dr. Alvin Eurich has had ample opportunities to chart the life span of educational innovations. In "Reforming American Education," he reminated on why new concepts tend to wither away.

All too often, he concludes, there simply is no mechanism through which colleges can cooperate in offering instruction. Then, if institutions *have* managed to link up and make an experiment succeed, there's no agency in being to keep it alive. Or it can happen that the innovation gets inadequate trial, or is developed with too little imagination or skill. But perhaps the major obstacle, writes Dr. Eurich, is that:

> "Clearly, a very large majority of our institutions of higher learning and faculty members have no commitment to change or to improve college and university teaching."[34]

Now, eight months after its major funding by the National Institute of Education, the University of Nebraska's S-U-N venture looks as if it has antidotes for many of these liabilities. A means of helping colleges cooperate, formation of an agency to perpetuate the project, a big commitment of time, design and creative skills -- S-U-N promises to provide all these. As for turning-on teachers in wholesale lots to the joys of innovation, S-U-N may produce high standard stuff, but *not* miracles.

* * * * *

January 1971: The British Open University admitted its first students, and many American innovators were itching for the chance to see exactly what was going on at its Bletchley headquarters. Then the waters were roiled further by the appearance of Frank Newman's *Report on Higher Education* and the Carnegie Commission on Higher Education's study on *New Students and New Places: Policies for the Future Growth and Development of American Higher Education.*

These influences disturbed Nebraska's President D. B. Varner. He was "concerned" about doing something for those Americans unable to benefit from on-campus, postsecondary education. So he marshalled a university-wide committee that April of 1971 and gave them 90 days to write a plan of action for an appropriate project. In June the committee reported back. There should be a State University of Nebraska, or S-U-N, project. It should offer a nonresidential curriculum, drawn up by an independent staff and faculty. Resource centers throughout the state would be opened as a "focal point" for learners who would be exposed to learning through TV and "all other educational media which would promote learning activities."[35]

With that, the task began. A $25,000 Office of Education grant that November led to a study of potential "students". According to the survey, 20,000 to 24,000 adult Nebraskans (1.7 percent of the population) would be distinctly interested in taking S-U-N courses. Then came another U.S.O.E. grant: $50,000 to see how S-U-N might tie in to other institutions, and what the ingredients of a planning study should be. Phase III began in November 1972; this time, a third Federal grant ($516,450) started S-U-N along the research and development trail. Out of it came S-U-N's 20-step course-design process, a concept for the make up of a production team, testable modules in two subject areas, and a scheme for translating S-U-N into a regional university. Still another Office of Education grant of $297,909 on August 28, 1973, coupled with $200,000 from The Edna McConnell Clark Foundation that October, kept S-U-N moving; and by December 1973, Executive Director Jack McBride and his associates were braced for the plunge into a five-year development period commitment.

Few public broadcasters have consulted more widely, served on more professional boards, and accomplished more in their home state than McBride. General Manager of the University's TV station, KUON, he brought into being a nine-station statewide TV network and plowed the right furrows to build the University's six-floor, $3 million telecommunications center (opened in 1972). And early in the game, he began sharing the load with the first man in charge of S-U-N, Dr. Robert Ross. When Ross resigned in December 1972 to take the University of Arkansas-Little Rock Chancellorship, President Varner turned to McBride and set him in place as S-U-N's Executive Director. A long year later, Nebraska got its

marching orders from N.I.E. and the high gear funding of $934,581. S-U-N was in business.

By then, McBride's staff had closed in on the image of its audience. There were two primary groups: the bright high school student who wants to speed up his education, and the adult who cannot take courses on campus. Questionnaires showed that of those adults clearly interested, 32 percent were professional, technical or managerial, and 60 percent earned more than $10,000 a year. One-fourth were already studying in some regular kind of program; one-third had taken one or more adult education courses. Time and again the responses turned up course preferences for psychology, sociology, mathematics and accounting. McBride's associates had pegged psychology and accounting for their first production efforts, even before the big N.I.E. grant dropped on them.

To a visitor in September 1973, it was blatantly clear that S-U-N would itself major in modern day systemization.[36] Under the direction of Dr. C. Edward Cavert, a 20-step course development process unfolded.* With it came the formula for a team of individuals who would bear down full-time on constructing a course, under S-U-N's Provost and chief academic officer. Team members would include: educational psychologist, test designer, evaluation specialist (to appraise modules in the field), instructional designer, content specialists, media producers, media writers, TV and radio directors, cinematographer and graphic artist. They, in turn, could call for part-time aid from a copyright specialist,

*Actually, he had begun evolving the concept while still a staff member of the Great Plains National Instructional Television Library, a service agency of the University of Nebraska-Lincoln and a first cousin of S-U-N within the University's telecommunications complex.

casting coordinator, composer or print editor. Step by step, the team climbs the 20-rung ladder -- and how stiffly or fluidly they do it will depend (the September 1973 visitor concluded) entirely on (a) the individuals who are part of the team and (b) how well they respect each other. A library full of strategems won't work if these people cannot "get along".

Assuming they *do* acclimatize to each other, what are team members obliged to do? They will divide content into a series of lessons and apply the various media to each. Ideally, but not in all cases, every lesson will be "taught" by six modules, carefully interrelated:

1) A study guide workbook -- Describes concept; includes syllabus with course objectives, and extra reading;

2) A newspaper feature -- Once a week, a daily paper that covers the state will include a feature on the lesson of that week, along with key questions;

3) TV module -- Televised vignettes built around key concepts;

4) Audio cassette -- Includes experiments and questions to answer;

5) Instructional kit -- Its elements could range from record albums to 35mm slides and a viewer;

6) Text -- The assigned book for the course.

In keeping with the intricate instructional design process, each module will be hinged to the others. From course to course, the balance between them may differ. At all times, though, specific learning objectives will have been declared before the media specialists get close to production in-studio.

On course delivery, planning is well underway, too. Starting in the summer of 1974, the web of learning centers was being set up to give the noncampus student points of access. They can be used for registration,

to lay out extra reading materials, for viewing TV course components on video cassette or for testing and faculty-student meetings. Meanwhile, the state TV network will carry the broadcast module to residents surrounding each of the nine transmitters; the student will get his learning kit through the mail; and a daily paper has agreed to run the course feature once a week.

During the summer of 1974, S-U-N left the theoretical behind, at least in one respect: the first of the S-U-N courses, Accounting I, went into full production. It represents the first term of the subject at the college level, "an integration of financial and managerial accounting."[37] On finishing its 15 lessons, the student should be primed to move right into the second-term course. To stay on track and meet the N.I.E. contract, S-U-N had to have the series fully designed, produced and formatively evaluated by January 1975, at which time all modules were ready for student use. By working full tilt during the summer, however, the team had the course all set to go by October 1.

With S-U-N in cruising gear, McBride has been drawing in the kind of staff necessary to combat the erosions Alvin Eurich decried in 1969. As Provost, S-U-N hired Dr. Melvin George, since 1970 the Dean of the College of Arts and Sciences at the University of Nebraska-Lincoln. The new Director of Evaluation and Research is Dr. Dennis Gooler, formerly Chairman of the Area of Instructional Technology, School of Education, Syracuse University. And from Kentucky Educational Television's carefully prepared General Educational Development project, S-U-N has brought in Kenneth L. Warren as an Instructional Designer and Course Acquisition Coordinator.

To those who hope to see better TV in C-TV, the names of other staff members will be more meaningful. As Executive Producer-in-Residence, McBride has hired Marshall Jamison, who has been writer, director and/or producer on a sizeable list of nationally televised shows -- The United States Steel Hour's "Theatre Guild" from 1955 to 1958, "This Was the Week That Was" in 1963-64, and the 1973 Emmy Awards telecast in New York. As Writer-in-Residence, the Course Development Team for accounting has at hand Lee Benjamin (like Jamison, an Emmy winner), TV writer and speech writer for a number of political candidates.

S-U-N will need all the help it can get from individuals like these, because N.I.E. loaded the Nebraska team with almost a Sears catalog of requirements for 1974 -- far more than just cranking out a new kind of multimodule course. Several of S-U-N's following assignments could head off the decrepitude that Dr. Eurich has noted in so many educational innovations:

* Top off the planning of a two-year postsecondary open learning curriculum -- the course to be developed, the program goals, the way of certifying achievement;

* Define a plan for four different approaches to developing courseware: 1) high-cost, high-quality TV programming; 2) low-cost TV programming; 3) adaptations of existing TV materials; and 4) programming not involving TV, but calling for other media;

* Make a long range regional consortium plan;

* Work out an approach to operational and fiscal projections for a five-year span;

* Analyze the present S-U-N administrative structure, compared with a potential regional, nonprofit holding corporation;

* Put together a pilot learning center and build on it toward creation of a series of similar centers by January 1975;

* Sift carefully through all the problems involved in acquiring courses from other producers and adapting them to S-U-N standards;

* Plan to broaden the funding base for this open learning system through some kind of multiyear consortium;

* Design, produce or acquire two multimedia courses and have them ready for student use by January 1975 (Accounting I is one of these, Introductory Psychology the other);

* "Tentatively" begin planning for eight more courses to be generated in calendar 1975; and

* Come up with a working plan for evaluations of both courseware and the delivery system.[38]

There have been skeptics who have looked at all the time and money invested to date and wondered where was S-U-N's Student #1. It seems unlikely that they know fully what the University inherited when it took on this multicellular mission. In fact, a great deal *has* been accomplished. As just one element, planners have done their spadework on bringing into being in the fall of 1974 a University of Mid-America as a "legally constituted nonprofit entity for the purpose of designing and producing courses with its own articles of incorporation, bylaws and officers . . . and with an operational plan which would enable open learning courseware to be employed in the participating states by January 1975 . . ."[39]

Meanwhile, Course Acquisition Specialist Ken Warren has conferred with CRM about adapting "Psychology Today: An Introductory Course" as S-U-N's second offering for fall of 1974. (Much to McBride's credit, his staff shut down their efforts to produce Psych in 1973 when they

found that the Coast Community College District had "As Man Behaves" in the works. S-U-N saw no reason for duplicating the work.) Whether S-U-N and CRM can agree is moot. S-U-N has its own formula for course manufacture. But to CRM, changing their films is out. Says Susan Allyn of CRM: "They can't change the TV. We won't allow it."[40] Nevertheless, S-U-N has intended to adapt the course to a certain degree.

Looking farther ahead, S-U-N has been granted $95,530 by the National Endowment for the Humanities to begin work on a course about "The Cultural History of the Great Plains". Historian Henry Steele Commager is senior course adviser, and other content specialists were lined up in the summer of 1974.

What will come from all this effort? If the funding life line holds, if the many problems can be thrashed out, then S-U-N will hope to have an inventory of approximately 50 courses by 1980 -- as Director of Development Milton J. Hassel phrases it: ". . . produced and available for any state or any college or university around the nation."[41] And if dollars mean course quality, then S-U-N, as indicated by current budgetary planning, should be weaving series that any college would be pleased to have for its nontraditional study display.

As of summer 1974, the project's economic model projected course production costs to range from $635,000 for an elaborate S-U-N produced set of materials to $71,000 for a course acquired from an outside agency or institution and used essentially "as is".

"But will they get it in Des Moines?" This commercial TV cliché might be rewritten as: will faculties accept all this with rejoicing? Maybe the engine of S-U-N will become so powerful that it will sweep up

young TV-tuned academics in a classic example of bandwagonism. The day of reckoning, however, is down the road apiece. When S-U-N has 8 or 16 courses in float and they are seeping into other states, *then* it will be much clearer whether teachers will fight or join. Meanwhile, Jack McBride is pushing ahead, building what he sees as "an open learning system for all Americans."[43]

Maryland College of the Air

"Remarkably traditional."[44] This is how the Executive Director of the Maryland Center for Public Broadcasting, Dr. Frederick Breitenfeld, Jr., describes the Center's three-year-old "College of the Air" (COA). In a way, he is right. But this self-diagnosis sounds more pejorative than it should. And in its brevity, this description ignores something else remarkable. This is how -- once again -- a small nucleus of individuals can get on top of a job they know has to be done.*

In months to come, S-U-N may be lionized as a masterwork of contemporary system sent aloft by creativity and wrapped around the needs of nontraditional study. For its part, COA should be celebrated as a triumph of pragmatism. The differences between the two approaches seem substantial. S-U-N has mass, a varsity-level budget and a swelling staff roster. But it has no more determination and zeal than the few people who make up COA.

Which is the better way? At the Maryland Center, comparisons

*For those who may find the formula of the College of the Air imitable, interviews with Dr. Breitenfeld and the project manager, Richard W. Smith, are consolidated in Appendix II.

would be seen as a waste of energy. They'd want to get on with the task. By now they've become used to their pick-and-shovel method.

Bit by bit, the Maryland Center has wedged itself into the framework of postsecondary education in the State. In the spring of 1974, 852 individuals registered for three types of college-level learning delivered by the Center's transmitters -- 510 of them for the four undergraduate courses televised, 42 for teacher training programs, and another 300 for two British Open University courses being fielded by the University of Maryland. "This was our best term yet," says the Center's chief operative on COA, Richard W. Smith, Director of Development Projects.[45]

Actually, COA has only a few, scarcely secret ingredients:

1) The sponsoring Center does all the detail work it can for the cooperating colleges.

   "We try to make it easier all the time for the colleges to administer the project," explains Smith.[46]

2) Management by someone with special talents for the job.

   As Breiterfeld describes him, Smith has "honest-to-God savvy about university functioning".

3) A buoyant Executive Director at the Center who gives higher education services a "high priority" among the missions the Center will perform.

   In the academic season, almost one-fifth of its 110 weekly on-air hours is devoted to COA.

4) A versatile, largely self-contained telecommunications center only five years old, with color TV capability and expanding reach (three transmitters are now broadcasting, a fourth will be in operation in 1975, and a fifth in 1976).

To develop the backdrop for COA, one should understand that public broadcasting in this state is a relative newcomer. The Maryland Public

Broadcasting Commission was established by State law in 1966. Two years later, the digging began for the new studio complex in Owings Mills, 12 miles northwest of Baltimore, under the watchful eye of Dr. Breitenfeld. By late 1969, the Center was in operation. And higher education became one of its earliest self-imposed obligations. Says Breitenfeld:

> "I realized that if we are going to use state tax dollars . . . we had better stick pretty close to the traditional and accepted services, one of which is college education . . . So, from the beginning, I thought it would be a good thing, not only for the education provided, obviously, but also in helping us to take our place among the institutions of the State -- quickly."

By "good fortune," he adds, Smith was already on staff, with a background in college consulting and fund raising. "He knows more about colleges than most people you and I know," says the Center's Executive Director. That expertise became invaluable as the pattern for COA began unfolding.

Smith hitched his wagon to no particular model. Rather, he simply went out to see if he could interest community colleges in a cooperative venture. So, in effect, the Center made its own formula. "I think everybody should," Breitenfeld explains. To be sure, it took patience and time (as it would almost anywhere). All of 1970 went into meetings with college representatives and admitted "hassles". But the Center did not bother to put its finger into the wind to see if a demand for televised courses existed. Breitenfeld explains:

> "It appeared to me that American education and the American population are in a state that would make the answer to the question rather obvious. I think we can go into any market at any time and declare that we need better adult education, better college courses, better

> vocational ed, and be absolutely correct any place in the United States."

Nor was there any mandate from Breitenfeld's Commission telling him to undertake this kind of programming. As for the title College of the Air, "we used it just to give this thing a feeling of tomorrow". They were involved in a "political adventure," trying to bring together institutions quite unaccustomed to working side by side. It is small wonder that it took 12 months before COA was ready to transmit courses to its first students.

By the spring of 1974, Smith had engineered a consortium of 17 Maryland institutions, most of them community colleges. In each case he had won the assignment of a Dean to what he has labeled his "Council of Deans". It all sounds official, but COA actually has no officers, and only the words themselves give it the mark of authority.

Hardly extraneous, the Council tells the Center what courses the Deans want on the air. These tend to be the basic, big registration courses. Besides this function, the Deans scan the list of what's available in other states. If they see a course their faculties want to look at, Smith gets an outline for them. But when decision time comes, he makes no effort to get a quorum of the 17 colleges behind the choice:

> "I've never really organized it that way. I've tried not to. Nobody's ever decided how many colleges have to approve of a course."

As a practical matter, a lot hinges on Smith's three largest colleges, all in the Baltimore area. If any of them were "violently opposed," he wouldn't run a course. That could cost him a big chunk of registration. On the other hand, if all three okay a proposed course, he'll go with it.

In short, it is all done *very* informally. Smith prefers it that way

-- "by never putting anything on paper". When it comes to picking a "teacher of record" as contact for the broadcast course students, he says to his Deans, "Whose turn is it to pick a course?" Usually, one Dean or another steps forward and agrees to assign a teacher, at his college's expense. What it all means is that colleges from different political subdivisions in the State are actually sharing teachers -- a "political victory" -- in Breitenfeld's view.

Without writing them down word for word, Smith and the Center have generated these procedures for the College of the Air:

* To meet the Deans' needs, the Center will either lease a course from outside sources or produce one itself.

  ** So far, the Center has produced three (Biology, English Literature and Sociology), and it plans to continue producing two a year.

  ** The Deans approve, or get approval on campus for, the chosen course. If the Center is producing it, then the Center itself hires the teacher to work out an outline. Smith goes to a specially established curriculum committee from three or four colleges to get its ratification. He makes no effort to have all 17 approved. "You'd never do it," he believes.

  ** If teachers are "recalcitrant," Smith arranges a meeting to let them "pontificate". This seems to do the trick: they wind up concurring.

* Several weeks before a broadcast semester begins, Smith convenes all Deans, administrators, teachers of record and the on-air teachers (even if they have to be brought in from as far away as Chicago TV College). Thus, everybody gets better acquainted, both in respect to the specific courses and personally.

  ** At this outing, he corners the Deans to talk about the course offerings for the following term.

* The Center prepares a course information sheet that campus Registrars can hand out to prospective broadcast students.

  ** Smith and staff also deal directly with college bookstores, nudging them to order prescribed texts in time.

* If registration tumbles, Smith will assemble the Registrars to find out what went wrong. He has already learned that sometimes professors will "bad mouth" the TV courses. At the most, Smith meets with Registrars once a year, unless that kind of hazard crops up.

* To register, a student goes to or contacts the college of his choice, and that's where his course credit will stem from when the semester is over. The student pays whatever the going tuition is at that campus. Then the college remits $20 per registrant to the Center. These dollars cover course acquisition (from outside sources) and some promotion.

* Courses are broadcast early morning, at suppertime, or late evening. There is always a rerun over the weekend. All programs wind up being shown at least twice a week.

  ** Besides the TV watching, the student often has workbook exercises, a paper to write, a professor to talk to and text readings. Then there are the customary tests.

  ** Most courses have a telephone schedule. In set hours, the student can call the teacher of record with questions. In the main, student response has been "reassuring".

* If the Center is producing the course, a curriculum committee will be formed through the Council of Deans. Members of that group will be paid as Center consultants.

  ** The Center schedules auditions for on-air teachers. It is not averse to using an actor in lieu of an actual teacher, but hasn't done so as yet.

  ** The individual selected to teach on-air is paid by the Center out of its funds. The Center retains rights to the series, but agrees to pay him a royalty if the course is ever used

commercially. Breitenfeld feels that the teacher who makes a TV course should get all the same credit that goes to the man who publishes a text. "It takes a helluva lot more work than writing a textbook," he says.

** Whether the product winds up featuring a "talking face" depends largely on the subject and also on the face. To Breitenfeld, it "depends on what you're teaching, to whom, under what conditions, with whose budget."

** As for the overall cost of a standard course (30 units, each 45-minutes long), the Center estimates its out-of-pocket expenses in the area of $40,000. Then there would be another $40,000 or so in indirect costs met by other Center budgets (studio, personnel, studio rental, Smith's salary).

Breitenfeld acknowledges that the Center's approach to course design differs markedly from the technique being unfurled at S-U-N. Calling Maryland's approach the "Quick and Clean Method," he has this reaction to the S-U-N alternative:

> "Great! A year's research, large committees, then the piloting of a program, field testing, and a hefty development phase. In Maryland, though, we're working in a political-pragmatic mold. Within the bounds of academic and moral integrity, what can we do to help higher education and help students? When we get a teacher who's been teaching it in the classroom and willing to give it a try, we roll. There are some things to clean up -- granted. There *are* curriculum committees. But that whole year that S-U-N might do, we don't do."

While COA represents about one-fifth of the Center's air schedule, it only absorbs 3.3 percent of its overall budget of $4.5 million. Taking a general cut at lumping direct and indirect COA costs, the Center figures it is spending about $150,000 annually on the College project. And Breitenfeld concedes that some higher-ed TV "enthusiasts" could well say

to him: "How come we're getting so little of your budget?" It turns out, however, to be almost a third of the money available for "local production."[47]

For the fall term of 1974, Smith scheduled four undergraduate courses (Educational Psychology, Sociology, American History and Astronomy); Sociology came out of the Center's studio, while History and Ed Psych are rentals from Great Plains National Instructional Television Library and were produced by Chicago's TV College. Astronomy was turned out in 1965 by SUNY-Albany. Then there will be two more Open University courses (Urban Development and Humanities); the University of Maryland pays the Center nothing for these broadcasts.

Smith expected about 700 credit students for the fall semester. This amounts to a drop-off from spring '74 (852 registrants), largely because fewer courses were offered. There were no teacher training series, for example; the Center will bring them back at a later time. Meanwhile, of the 17 colleges in the cooperative, 11 were actually involved in the course offerings.

There are few pretensions at the Center about COA. For example, Smith and Breitenfeld do not expect Maryland students to get an A.A. degree through TV broadcasts, at least not in the foreseeable future. Instead, they hope individuals will go to a campus to finish out their degree work. As a matter of fact, surveys by one of the more zealous collaborators, Catonsville Community College, underline the merit in that point. Through questionnaires sent to more than 250 former TV-course viewers, Catonsville found that "a very high percentage" had elected to come to the campus for further courses. For Catonsville, TV has become a recruiter.

It is no small task, in the Center's experience, to overcome the "political resistance" to a project like COA. To have a chance of success, as Breitenfeld sees it, at least three ingredients must be at work. First, there must be enough budget, administrative power, and grit to tackle the job without waiting for someone to knock on the door. Then, he says, someone like Dick Smith is vital, a person "so savvy about how colleges work that none of these things about bookstores or dilatory professors . . . comes as a surprise". And, third, there has to be a topnotch teacher behind the scenes or on the air. Without these ingredients it will be difficult in the extreme to overcome the various kinds of resistance.

Viewing the scene even more broadly, Breitenfeld is just as unequivocal about what the future holds for formalized learning in America:

> "The demand for education is going to be great. Our colleges and universities are becoming either too big to educate personally or too small to be economically viable. We have empty dorms and we have some marginal teaching that's getting worse. Our standards are dropping. It's just a very sorry educational scene.
>
> "I think the problem of resistance will evaporate because people will *demand* more and better education. They won't care where they get it, how they get it, or under what conditions. And that's why we in education should be digging those trenches now. We should be producing those courses, storing them, sending them through cable, putting them on cassette, putting them on the shelf, and just getting ready for that revolution when the people say, 'Enough! I want to learn basic grammar and you better give it to me or I'll get somebody *else* to be superintendent of schools.'"

"The Ascent of Man: A Personal View by J. Bronowski"

This August 21st, Jacob Bronowski died. His was one of the most unusual minds of the 20th Century -- mathematician, humanist, authority

on poet William Blake, statistician, literary critic, philosopher of science. Had he lived until January 1975, he would have seen one of the typically remarkable works of his lifetime -- the 13-part TV series entitled "The Ascent of Man: A Personal View by J. Bronowski" -- put before both casual and credit-seeking audiences throughout the United States. With his facile mind, he undoubtedly would have appreciated the parlay that different institutions have worked to make his TV programming broadly useful.

Written and narrated by Dr. Bronowski, co-produced by BBC-TV and Time-Life Films, this property has genuine class, much like Kenneth Clark's "Civilisation". The very first show opens in the Omo Valley in Ethiopia, at a site where the remains of earliest man have been unearthed; it proceeds, in time, to the art galleries of primitive man in the caves of Altamira, Spain. In all, the film crews worked in 27 countries -- from Jericho, to Machu Picchu, to the island of Samos and to Venice, to Hiroshima and Auschwitz. And Bronowski's touch and perceptions run through it all.[48]

On January 7, 1975, the hour-long programs will start playing over the noncommercial TV stations interconnected by the Public Broadcasting Service. This became possible after negotiations by public TV station WGBH, Boston, with the co-producers and with potential underwriting sources. Eventually, Mobil Oil Corporation and The Arthur Vining Davis Foundations agreed to put up $400,000 apiece for a total of $800,000. As a result, the quality programming will be distributed free of charge throughout the country. WGBH is serving as packager for PBS, preparing six-minute "fills" to round out the shows to just under an hour each,

supervising preparation of an opening animated by Ivan Chermayeff for Cambridge 7 Productions.[49]

For many a viewer, this will be ample to make for a captivating 13 weeks. But at several levels, an individual will be able to get still more serious about the programs. On one hand, there will be teachers' guides, and on the other, it will even be possible to "take" the series as a college-level credit course. How it all hangs together, and how much it succeeds, should make one of the most intriguing public TV analyses of the year.

A flood of teachers' guides -- 75,000 in all -- has been set in motion by a further grant from Mobil.[50] Some 35,000 of these were to go to every four-year and two-year college, as well as every senior high school (except parochial ones), in the country. Each institution gets one and will have the right to reproduce as many as it needs. Then, the balance of the run (40,000) will be reserved for individual PBS stations, which can receive an average of 200 apiece at station option. For educational institutions and stations, the guide is free.

The task of producing the guides (by Thanksgiving) fell to Teachers Guides to Television, whose head is the same Ed Stanley of "Continental Classroom" days. His associate, Gloria Kirshner, and he have put together a 28-page booklet, with two pages devoted to each of the 13 shows. By early summer their office was already receiving calls from college professors, wondering when the material would be coming out.

Then there is a third phase of this imminent event: its treatment as a college credit course. This facet has no administrative tie to either the PBS transmission or the provision of the booklets by Teachers

Guides (although a measure of redundancy *is* inherent). Rather, it reveals the agile footwork of some educators who saw a chance in May and June 1974 to "piggyback" on the early 1975 broadcasts.

This gambit was evolved by administrators at two quite distant academic institutions, both of which have already shown their colors in favor of using innovative extensions of education -- like media. One was Miami-Dade Community College in Florida; the other, the University of California at San Diego (UCSD). As it happened, they both spotted, on their own, the option of converting the January broadcasts of "Ascent" into a credit course. But then -- and award them both the Distinguished Order of Wisdom for it -- they decided quite early that they could, and should, work together. And so they have. It's a gamble, they realize. Yet, those who know the elegance of the "Ascent" films might concur that the bet is not all that shaky, *if* the word gets out adequately.[51]

By crisscrossing the continent for planning sessions, the representatives of the two institutions came up with a logical division of the work. Miami-Dade was to develop supportive materials for "Ascent" treating it as an introductory course for the student with no background in science. UCSD, meanwhile, was to gear its materials to four-year college students in the upper division, along with adult learners on the outside; its support elements presume prior knowledge of the subject. As a result, Miami-Dade and UCSD have contrived a way in which two courses can be chipped out of the single PBS broadcasts.

To back up this approach, Miami-Dade put 13 faculty members to work on a study guide, sending them out to San Diego to discuss approaches

with Bronowski before he died. At the same time, UCSD did a separate guide for its higher-level course. Both run to 128 pages. Supplementing them will be a 350-page anthology which applies to either course, the product of science writer John Henahan, who also had the benefit of Bronowski's views. On the whole, one would have to say that guide plus anthology plus Bronowski's own book (based on the TV show scripts) add up to a substantial reading package.

During the last week of September, a course mailing went out to 15,000 individuals. Descriptive brochures went to each college president, each academic dean, and each individual in charge of continuing education. When it becomes appropriate, Miami-Dade will handle contacts with the two-year colleges, while UCSD relates to four-year institutions and any of the members of the National University Extension Association.

What does an interested college get if it decides to offer "Ascent" as a course this January? For $250 it will receive an administrative packet -- pictures of Bronowski, sample program outlines, economic models on how the project can work for a college, and a promotion kit. Besides this, the transmitting office (Miami-Dade or UCSD) will urge the potential user to take advantage of the appropriate 128-page study guide, pegged at $4.95 a copy. Here, of course, there is an overlap of sorts with the booklet sent out by Teachers Guides.

In their division of chores, the two institutions agreed that Dr. Robert McCabe, Executive Vice-President of Miami-Dade and its chief delegate on the two-party "management team," would work out the economic model. Its purpose: to show a college what it will cost to get into the "Ascent" credit course option and what the returns can be, based on

enrollment assumptions. At the other side of the continent, meanwhile, a staff member working for UCSD Project Director Dr. Mary Walshok has developed the public relations-promotion kit. (One ought to note that at the "field" level, it's going to be up to the local educational user to ask the local public broadcaster for help in promoting the course aspect of the TV series.)

So, in spite of geography, Miami-Dade and UCSD are in this together. The former has spent around $40,000 of its own money, so far, while UCSD has put in more than $20,000 (a four-member staff has been spun off to concentrate on "Ascent"). When dollars start coming in, they have agreed to split 50-50. The returns will come from purchases of the $250 administrative packet and sales of the $4.95 study guide ($2.00 of that comes back to the two managing partners). An expert in institutional economics and college cost-sharing, Dr. McCabe likes the numbers as he sees them. His anticipation: "We figure we're going to come out very very well on this project."

An appealing overtone of this combination of forces is the élan with which college and university are assaulting the task before them. This spirit is transmitted by both Dr. McCabe and Dr. Walshok, the Director of Arts and Sciences for UCSD Extension, who says:

> "What is so exciting about this is that it is possible on the basis of buying the print materials at a bookstore and watching the TV series and coming on campus for two one-hour meetings to get three units of credit for this course."

While UCSD itself will test the student in the final contact session, it is perfectly possible for a subscribing college to treat "Ascent" as a course entirely oriented to home study. Dr. Walshok emphasizes that

what makes it good for home study is the "proper combination" of media and excellent print materials. Dr. McCabe votes the same way:

> "'Ascent' can really turn a corner for us because it's so well done. The academic work is outstanding. When you add what we've added, with solid effort on the quality of the printed support materials, that's going to make a difference in how the course is received."

Whether large numbers of people decide to pursue the credit option in the "Ascent" broadcasts will undoubtedly have little if anything to do with the excellence of the programs, which veteran Ed Stanley considers "delicious, wonderful . . . and (done) superbly."[52] One factor that may impinge against widespread usage is time. It is hard to overlook the sobering experience of San Diego State in trying to launch the Open University's Math course in 1972. Too little lead time, they eventually realized. It isn't so much that people need a lot of time to make up their minds. Rather, it takes real time to spread the word, and in this situation, all the skills that heralded the march of "Dr. Pepper" into the Eastern marketplace need to be marshalled, and fast. Luckily, there is the likelihood that "Ascent" will be rebroadcast through PBS in the fall of 1975.

The last program in this series has been titled "The Long Childhood". According to the BBC publicity blurb, it deals with the "way each age and each culture has limited the opportunities of the child . . ."[53] One can wonder whether the positive ways in which educators and public broadcasters are planning to capitalize on this marvelous TV resource suggest that possibly the "long childhood" of college learning through television is coming to an end. With Dr. Bronowski, we must not overlook the difficulties, but we can hope.

FOOTNOTES

[1]Franklin G. Bouwsma, Letter "To the College Executive Administrator," Man and Environment, Fall-Winter, 1973-74.

[2]Fred A. Nelson, "The Open University in the United States," College Board Review, No. 85, Fall, 1972.

[3]Program Audit of Educational Television in New York State, by the Legislative Commission on Expenditure Review, The Legislature, State of New York, July 6, 1973.

[4]The writer had occasion to meet with several advance men in August 1971, in New York City.

[5]Louisville Courier-Journal & Times, March 10, 1974.

[6]James W. Armsey and Norman C. Dahl, An Inquiry Into the Uses of Instructional Technology, (New York: Ford Foundation, 1973).

[7]An Inventory of Audio-Visual Instructional Materials Available for Use in Higher Education, by Arthur D. Little, Inc., (Cambridge, Mass.: January 31, 1974), p. 4.

[8]Anthony Mellor, Interview May 23, 1974. Except where indicated otherwise, quotations from Mr. Mellor represent excerpts from that interview.

[9]Humanities: A Foundation Course, (London: The Open University Press, 1970).

[10]Kenneth Jones, Telephone Interview September 4, 1974.

[11]Mellor, Telephone Interview September 25, 1974.

[12]"Film Guide: Psychology Today Independent Study Program", Film 5, (Communications Research Machines, Inc., 1973).

[13]"Psychology Today Record Series," Record 1, Side 1, (CRM, Inc., 1972).

[14]"Psychology Today: An Introductory Course" Brochure, by University of California Extension and Psychology Today Independent Study Program, n.d.

[15]Susan M. Allyn, Letter February 28, 1974.

[16]John P. Witherspoon, Telephone Interview June 16, 1974.

[17]Dr. Norman E. Watson, "Comment," Forum Fifty, Vol. 2, No. 3, March 1974, p. 2.

[18]Dr. Bernard Luskin, "Final Enrollment for Spring Telecourses," Memorandum, Coast Community College District, March 1, 1974.

[19]Dick Adler, "Orange County's TV 'Communiversity'," Los Angeles Times, March 14, 1974, p. 1.

[20]Bernard J. Luskin, Martin Chamberlain, and Kenneth Jones, Project Outreach, The Coordinating Council for Higher Education, State of California, n.d., p. i.

[21]Luskin, Letter April 17, 1974.

[22]Luskin, Letter June 5, 1974.

[23]Adler, Los Angeles Times, March 14, 1974, p. 17.

[24]Luskin, Letter June 5, 1974.

[25]Frank Bouwsma, Telephone Interview April 4, 1974.

[26]Man and Environment, Promotional Brochure, Miami-Dade Community College, n.d., p. 2.

[27]Inventory of Audio-Visual Instructional Materials, Arthur D. Little, Inc., January 31, 1974.

[28]Man and Environment, Brochure, p. 5.

[29]Ibid., p. 13.

[30]Dr. Robert McCabe, Telephone Interview September 25, 1974.

[31]Bouwsma, Phone Interview, April 4, 1974.

[32]Richard W. Smith, Telephone Interview June 14, 1974.

[33]Man and Environment, Brochure, p. 12.

[34]Alvin C. Eurich, Reforming American Education, (New York: Harper & Row, 1969), p. 136.

[35]"The History of S-U-N and Its Organizational Structure," by the State University of Nebraska, No. 9, n.d. Except where indicated otherwise, what follows is derived in good part from a series of nine related reports on S-U-N.

[36]Based on the writer's visit to the University of Nebraska for purposes of gaining an insight on the progress of S-U-N, September 30, 1973.

[37]Ibid.

[38]"Calendar 1974 Work Statement," S-U-N, OEG-0-72-0457, Rev. No. 12, Attachment A, pp. 1-3.

[39]"Implementation Plan and Time Line: Incorporate UMA," S-U-N, W.A. No. 5-C, May 24, 1974.

[40]Susan M. Allyn, Telephone Interview June 16, 1974.

[41]Milton J. Hassel, Letter February 27, 1974.

[42]Dr. Ronald J. Turner, Telephone Interview July 15, 1974.

[43]Quarterly Report to The Edna McConnell Clark Foundation, by S-U-N, April 5, 1974, p. 14.

[44]Dr. Frederick Breitenfeld, Jr., Interview June 13, 1974. Much of this section has been drawn from interviews June 13-14 with Dr. Breitenfeld and Richard W. Smith.

[45]Richard W. Smith, Letter May 7, 1974.

[46]Ibid.

[47]Dr. Breitenfeld, Post-interview Comments, July 1974.

[48]"The Ascent of Man," Background Information, Time-Life Films, n.d.

[49]Douglas Smith, Telephone Interview September 10, 1974.

[50]Gloria Kirshner, Telephone Interview September 20, 1974.

[51]Dr. Mary Walshok and Dr. Robert McCabe, Telephone Interviews September 25, 1974. Except where indicated, the remaining information on credit-course aspects came from these two phone interviews.

[52]Edward Stanley, Telephone Interview September 20, 1974.

[53]"The Ascent of Man: A Personal View by J. Bronowski," BBC Press Service, n.d.

CHAPTER V

STEPS INTO THE FUTURE

> " . . . our research told us very clearly that one of the greatest obstacles to the development of the open approach was that people couldn't get to where the learning was going to take place. They couldn't come to a college or university campus, or some other central location; they had to have something that was convenient, in their own communities or homes."
>
> -- Dr. Samuel B. Gould[1]

Dr. Gould's Commission on Non-Traditional Study put two years into appraising the "present restlessness" in higher education. Its recommendations should be required reading for postsecondary educators. Among its hardly trivial findings: the equivalent of almost 80 million individuals said there was something they'd like to know more about, or how to do better.[2] However, those adults would reach only so far for answers.

So, if these potential learners cannot or will not go to the educational trough, the kernels of knowledge must be brought to them. But how? This suggests the present quandary for the NTS planner.

Remembering yeoman efforts of the past and today's innovations, and remembering too the force of the entertainment medium which has pervaded American life for a generation, an observer can conclude that *open-circuit television represents one positive way of overcoming the "inconvenience" factor* for adults at home.

The intelligentsia may deplore television. Still, the numbers involved merit more than a fleeting thought:

* 96.1 percent of American homes are equipped with TV.

* There are 117 million sets in existence, or one for every two citizens.

* Americans turn on their set for an average of six hours and 16 minutes a day.[3]

These numbers, it is true, say nothing about TV as an educator. In his 1973 paper, Stephen White, Vice-President of the Alfred P. Sloan Foundation, dissected instructional TV down to its notochord. It was evident to him that " . . . for the most part educational television up to now has devoted itself to doing not what television does best but what the teacher does best: It presides over the class and lectures."[4]

Then White ticked off the strengths of TV mainly ignored by educators (users of instructional TV, or otherwise): "its ability to bring a slice of the real world into the living room and the classroom almost instantaneously . . . the power of television to motivate, which exists beyond any shadow of doubt . . . to teach students at the moment when they are most interested in learning . . . to link the abstract, removed world of the institution of higher education with the real world with which the education is supposed to interact."

The challenge now is to capitalize on those powers for education's benefit at a time when extraordinary adult needs may otherwise be slighted, if not ignored.

The challenge, as Chicago TV College's Dean Zigerell puts it, is to trigger the best "imaginative efforts to integrate (TV) into a total instructional system, (or it) may become even more marginal to higher education that it has been."[5] His point should be considered a mandate from here on out.

The challenge is to counteract an apparent prejudice in adults against learning through TV. Dr. Gould's Commission found that 28 percent of those surveyed opted for lectures and classes as vehicles for learning, while 21 percent like on-the-job training and internships. But *only one percent* could picture learning through TV or video cassettes.[6]

The challenge, further, is to use technology to "set the teacher free," in Dr. Eurich's words. While the educational future he foresees is "by no means inevitable," he *does* envision technology's being harnessed to raise the teacher "to a role of dignity and distinction that will draw on all of his human resources . . ."[7]

But there is still a broader challenge. The editor of *Change*, George Bonham, tosses the gauntlet *not* at TV and media but at higher education in full silhouette:

> "It is one of the grosser tragedies of the present era in higher education that just as it has an historic opportunity to attract to the muse of higher learning large numbers of academically less talented students, our general abilities to imbue them with some larger intellectual sensitivities seem to have failed. As a consequence, much of what passes for higher education tends to dull the enthusiasms of thousands of new learners rather than strike fresh sparks of intellectual inquiry and curiosity."[8]

Perhaps, then, it is simply unjust for open-circuit TV to continue, as it has for so many years, sitting by itself in the stocks on the town common. Perhaps it is time for education to release it for a coordinated assault on a need that spans the entire society.

* * * * *

Certain words can truss a cantilevered footbridge over the gulf of ignorance and into the future -- Imagination, Design, Flexibility,

Cooperation, Humaneness, Leadership. Given a clear understanding and acceptance of how each of them applies to C-TV, then broadcast television can finally be recognized as a logical freeway to learning. In the succeeding section, there are certain specific recommendations for putting action behind these pivotal terms.

Imagination, a prerequisite for strong C-TV, means the qualities that make "Sesame Street" and "The Electric Company" sparkle on the screen: adroit creation of situations, effective writing and staging, pacing, and an ability to blend humor, pathos, and other moods into a "good show". For, when the "Rehearsal" studio sign begins flashing, what we're really talking about is just that: building compelling programming, just as Shakespeare did to attract diverse audiences into the Globe Theatre.

There's a hard fact of life behind this call for Imagination. Remember that NTS "clients," the multimillions for whom TV is a habit, are *used to good showmanship*. They see it day after day. They may also shudder at the memory of dull schoolroom instruction, solemnly delivered. They deserve better -- and probably can't ever be reached in bulk by broadcast TV if the imaginative and creative touch isn't there.

Take S-U-N. In its system, there comes a time for creating so-called "stimulus situations". To do this, the content specialists and other team members step back a pace to let the Marshall Jamisons and Lee Benjamins pass through and go to work. These are the individuals who know how to write, cast, and stage a show so that an audience stays with your half-hour right through the closing credits, even though torrid shoot-'em-ups have taken over the neighboring channels. Their task is to illustrate concepts creatively (in vignettes less than 10 minutes long) and, as Stephen White might urge, motivate viewers to learn.

What this new NTS era calls for in C-TV, however, is more than just a little laugh, a tear, a song, and a sigh. There must be meticulous *Design* -- what the University of Southern California's Dr. Robert Filep calls "an arrangement of phases in education or training which follows upon a detailed examination of the purpose of each phase."[9] Initial questions must be meticulously picked apart. What is the exact audience the project intends to serve? What are their needs and life styles? How can media respond best? To dig up answers, specialists in learning, content, media, and creativity have to live and work together like fraternity brothers. From their effort should come an assignment of roles to the available learning tools and decisions on how to get the message to the consumer at home.

Sophisticated course design represents a new strategy. It will take much more work and time, and more complicated decisions by more people, than the traditional teacher faces in writing his lectures for a new term. Based on its interviewing, the Ford Foundation found most authorities skeptical about whether media could "engage the individual learner in a more active and responsive manner than education has traditionally provided."[10] So, design must grapple for ways of engaging that learner, enabling him or her to *interact* with the media "if genuine learning is to occur . . ."

For today's NTS innovators, then, there's more to this course-building business than having the home student watch TV tapes of a professor's standard lectures, read a text, and take a multiple-choice test. Today's designer wants to reach the student more completely on more levels of his being. As an outgrowth, the long-familiar, one-way delivery system looks

more and more obsolete. Transmitting a course over TV and assigning a text no longer make up an adequate package for the adult learner. This awareness is part of a refreshing new concern for that individual, after years in which Teacher and Institution were preoccupied with their own love-hate relationship.

Of course, there are hazards aplenty in this near-science of design. The Commission on Non-Traditional Study warned of one. The institution designing an open learning program had better lock it into the whole process of curriculum development, especially if the student could qualify for an external degree, or "the new program is likely to fail."[11] This echoes the underlying theme that media use for NTS *must* be worked into the whole academic scheme of things.

The program might also fail if it has too little *Flexibility*. Here the truss word means several things. It has to do first with the *product* of design. Whenever rigorous system is applied, there's always the risk of casting the result in concrete. For the efficiency-minded, that may be easier; but the matrix must have *some* stretch. As Dr. Filep of U.S.C. sees it, design should be a dynamic process, one that ultimately "begins again with a fresh examination of the learning objectives, emphasizing the cyclical nature of the system, if it is to remain continuously relevant."[12]

Then, secondly, there ought to be flexibility in choosing the distribution device. For one academic subject, open-circuit TV may be the most logical carrier by far. If an individual cannot go vagabonding to 35 foreign lands, then color TV may be the next best magic carpet for taking him into the cultures of those lands (just as the Coast Community

College District did in its anthropology series). But if remedial English Composition is your mission, then one-way TV delivery may be highly inefficient, without complex support services to back it up.

The moral, then, is that the design team should review media options without prejudice for one or against another -- and by being part of a team, the participants can keep each other honest in the debate. The decision to use TV should be coupled to a whole raft of prior decisions, rather than starting off with the familiar declaration of yore: "Let's do a course on TV!"

There's a further matter to consider in respect to the emphasis in this report on open-circuit broadcast TV. It may be true that over-the-air TV has a home for itself in 96.1 percent of all American households. But, as Dr. Gould remarks, there is a "decided disadvantage" in the limitations of a fixed broadcast schedule.[13] The credit-course program that runs on Tuesday evening at 6:30 and repeats on Sunday at 11 a.m. means the home student has two cracks at it. But what if he goes hunting, or gets caught in traffic, or sprains his bowling hand and can't take notes? And suppose he wants to review Program 1 in week two. He's out of luck if delivery is strictly limited to open-circuit TV. So this distribution system of standard TV may be less than compatible with the goal of making nontraditional study genuinely convenient for the off-campus adult.

Therefore, the courseware designer should think about *multiple means of delivery*, and how to back up broadcast TV. One device, of course, is cable TV. In 1971, the Sloan Commission on Cable Communications affirmed that "cable television has a role in education, and perhaps a role of

surpassing importance. Its advantages over broadcast television lie primarily in the abundance of channels."[14] In a twelve-channel cable system, one channel assigned to education and operating seven days a week from 7 a.m. to midnight could easily play a given C-TV half-hour program 10 times in one week. This would leave 228 half-hour slots for other materials on the "For Education Only" channel.

To be sure, we are a *long* way from being a widely "cabled" country. Of the 66.8 million TV households, only 8.2 million actually subscribed to a cable service as of June 1, 1974. Officials of the National Cable Television Association report the estimates of investment and analytical firms that 17-30 million homes will be plugged in to cable systems by 1980.[15]

So, it's going to be some time before cable TV can be regarded as a far-reaching backstop for open-circuit TV, rather than just as a "coming thing". Somewhat the same could be said about another alternative, the video cassette player. Unquestionably simple to operate, this device plugs in to a regular TV set. The user can take a sealed tape cartridge containing one or more prerecorded C-TV course modules, slip it easily into the player, push the lever, and in seconds the first module will appear on his home TV screen. At least five manufacturers make video cassette players to the exact same standards ("U-matic"), hence they are compatible with each other. As of July 1, 1974, there were 75,000 to 100,000 of these players in use in America.[16] At a list price of $1,252, the most popular of these units, the SONY VP-1200, becomes an attractive option for institutions like colleges and libraries, encouraging them to set up learning resource centers. Routinely, the home student who missed

the TV broadcast could visit the center to play that unit at his convenience.

What this says, then, is that the courseware designer, like the skier told to "think snow," must think *flexibility*. In its way, broadcast TV received at home is fine. But the learner should have other options for his non-campus learning experience. And if it means adding electronic machinery, this shouldn't be seen as an extraplanetary threat to individuality. To Dr. Eurich:

> "The reverse is true: in an era when students come in tidal waves, the vigorous, flexible, and *imaginative* use of technology may be the only hope for avoiding regimentation. To meet the needs of the individual student and to enable him to proceed at his own pace in a tailor-made program of studies, there is no choice but to bend to educational purposes every device and technique of modern communications science."[17]

KCET's John Witherspoon observed an odd kind of endorsement for this argument. "For reasons not quite clear," he writes, "television becomes more academically respectable when non-broadcast distribution means are available. A number of university people have become genuinely interested in the implications of cable and cassettes, although broadcast television has been considered second rate for years."[18] Relatively speaking, the teacher-pilot may see himself as having more control over those devices than he may feel he does over the station's open-air broadcasts, with their locked-in schedules.

This comment becomes a reminder of almost the most important element of all: people. They hold the key to whether C-TV -- no matter how imaginatively conceived, rationally designed, and flexibly supported by other devices -- will stall on the runway, or fly. C-TV may keep on being

"second rate" if *people* cannot come together in this period of major educational change and bury a bit of their individuality for the adult learner's benefit.

So, *Cooperation* is truly the make-or-break force. People make the difference in success or failure of the production team. They unlock the door on sharing courseware materials. They vote yes or no on making a joint effort with other institutions. They decide on moving their college into new areas of public service, or holing up behind stagnant moats. They impede, or they facilitate. Bernard Baruch believed that "The highest and best form of efficiency is the spontaneous cooperation of a free people."[19] But he knew when he said it that some put him down as an idealist. Perhaps it is too idealistic to talk in this vein. Still, we are basically concerned here with how to bring free individuals into the kinds of cooperation which can infuse the new NTS enterprises with the greatest possible efficiency and effectiveness.

One ought to start by looking at that delicate instrument, the design or production team. If departmental colleagues can wrangle, you have to assume that there is the potential for difference in a lineup of learning psychologists, content specialists, instructional designers, and media experts -- each of them well established in his own satrapy and squirmy in any "Mod Squad" system. Nevertheless, they *have* to become acclimatized to the mix if their product is to work. As James Armsey and Norman Dahl have written, progress will depend on building "truly collaborative production teams which integrate the best that is known about subject matter, learning, and television production."[20]

With each passing season, more team operations are taking the field. Miami-Dade drew on people from 20 community colleges in finally framing its environment series; the "Outreach" Consortium in Southern California put 120 to work designing different program modules on that state's current problems; and S-U-N assembled a small group of specialists to bring "Accounting I" into being. (It *has* worked," reports Producer Marshall Jamison. "We've had a good meeting of minds."[21])

As the British Open University did four and five years back, these ventures have certainly found that getting team members to pull together is no mean task. At a minimun, say Armsey and Dahl, it will be hard to find competent individuals "capable of crossing lines over to other fields."[22] And so, they caution, don't expect that "first class" instructional television will grow very rapidly. Still, if the Army can devise stressful situations for seeing who will make a good squad leader and who won't, it *should* be possible to evolve ways for changing the internal climate of these teams of educated adults from frigid to temperate.

In the institution as well as on the team, people, again, say yea or nay to change. And in this new business of NTS, people-ordered change might well happen more easily in the community college than in the four-year institution. The former attracts a different kind of client than the august university or college. That individual probably is more mobile, and often works; his or her educational needs tend to be more practical and work-related. To find its own place in the sun, the two-year college has developed programs that, in the fullest sense, are attuned to current needs of students quite different from those of the four-year college's full-time learner. At a New Jersey community college in the fall of 1973,

extension educators were reaching out to offer short-burst programs for updating morticians, pharmacists, ambulance personnel, and women in management roles.[23]

Reflecting a similar kind of vigor, the push behind "Man and Environment" came from a community college. And when a dozen two-year colleges in three states were visited in October 1973 (for public TV station WNET/13 in New York), 11 of the 12 were quite ready to talk about sharing that channel's open-broadcast signal to fatten their independent-study programs. Few thought the problems of matching the standards of three states were insuperable, and few vetoed the idea of setting up a consortium to pursue common objectives. Synchronous with these findings, the Commission on Non-Traditional Study concluded that the two-year college would keep on being "a major center of non-traditional study."[24] All this is to suggest that by the nature of their work, the *people* of the community college seem positive -- even excited -- about change in the forms of NTS and C-TV.

Regardless of college type, C-TV courseware can be another stumbling block. If high-quality course materials are in short supply -- and they are -- this can become one more reason for voting against NTS. Those constitutionally opposed can charge with cause that C-TV series are mostly inferior. And the NTS boosters? They're faced with a stiff decision. "What do we do now: scour the countryside for TV courses that others made, or produce them ourselves?" Perturbed at the shortage in quality software -- he calls it the "missing link"[25] -- Dr. Luskin of the Coast Community College District had the District's TV station, KOCE, produce three of the six credit courses aired by the channel in early 1974, its second spring in business.

In its late-1973 study, Arthur D. Little, Inc., found that lower-division C-TV materials varied dramatically in both quality and comprehensiveness. Their level of sophistication was markedly lower than the British Open University's.[26] Not very enccuraging for those with enough spine to think of using C-TV materials produced by others. Nor was it exactly cheering to note in the report's Appendix the findings of a nationwide survey of TV course producers. Completed in August 1973 by Dr. C. H. Lawshe, Vice-President and Dean of Continuing Education at Purdue, this inventory listed 232 courses. Only 82 were clearly available for rental or sale. Some 54 were explicitly unavailable beyond the walls of the producing institution. And for 73 others, there was no evidence at all of whether they could be rented or not. (The inventory, by the way, made no attempt to judge available series on the basis of quality. The prospective user would have to joust with that matter himself.)

If the national inventory is as thin as this, then what options does the eager institution have? It could kick off its own coast-to-coast search. Or it could head straight for the two nonprofit course libraries, the Great Plains National Instructional Television Library, in Lincoln, Nebraska, and National Instructional Television, in Bloomington, Indiana. More actively involved of the two in distributing higher-education materials, the former handles the Chicago TV College output and other series. Each year, Chicago turns out new taped courses; but its slim production budgets hem in the production staff, although personnel try earnestly to include images other than the teacher's face.* Meanwhile, the main items in NIT's college-level catalog, the PACE programs, look their age, and are less and less likely to enrich a NTS program suitable for the Seventies.

A further recourse at that point calls for the institution to ignore any impulse to cooperate with others and try rolling its own. Just as countless colleges did in the early years, it can go it alone in its own studio. This can be tempting: local faculty feast on homegrown products much more readily than something hauled in from over the hills. But when administrators learn what high quality costs, the answer may be different. A study for the Massachusetts State College System in early 1974 looked at the high-quality precedents and recommended that the System spend an average of $200,000 per TV course. That sum would buy design, production, evaluation, and text-writing; it would yield 12 half-hour taped programs, a book, and standardized tests.[28] The people of any cost-besieged institution would have to be marvelously unfettered to be able to invest that kind of money without setting off twisters of internal protest. Yet only at that level of funding can an institution have any hope of making first-rate C-TV programming.

If that option goes down the drain, then only one choice remains -- and people will make or break this alternative, too. It is to join with other institutions with similar concerns. *Forming a consortium* may be the only path around the swamp; it may be the one true way for the pilgrims to progress.

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*Chicago TV College's Dean Zigerell notes that interinstitutional uses of TV courses have been "painfully slow" to catch on. In early 1974 he reported that in the previous half-decade, only about 20 colleges had leased TV College courses from Great Plains. Why? Mostly because of faculty resistance. Still, Zigerell believes that TV College must "constantly remind itself" that others are producing useful materials, too. Accordingly, TV College has used programs from Miami-Dade's "Man and Environment" to make up half of the 60 units in a two-term environment course.[27]

In point of fact, it is hardly a new way. Lewis D. Patterson of the American Association of Higher Education (A.A.H.E.) traces back one consortium (involving the Claremont Colleges, in California) almost 50 years. A second, Atlanta University Center, Inc., was formed 43 years ago, and operates for its five institutions on a budget of $1.1 million.[29] By 1965, the Office of Education found, 1,296 consortia were in existence. For its part, the A.A.H.E. published in 1973 its sixth edition of a Consortium Directory. Among the 80 listed (involving 797 members), Patterson saw only five which seemed concerned with media projects.

Actually, there *are* more than five in the nation that are media-concerned. Their failure to appear in the A.A.H.E. Directory could mean they are brand new, or don't meet the criteria for listing; for example, the organization must have more than a single academic purpose. Measured against that criterion, the California Instructional Television Consortium, with its 19 members, would not fit because its stated purpose is to "extend the instructional services of the schools through media technology to persons off campus."[30] Nor would the 31-institution Southern California Consortium for Community College Television in Los Angeles make it. Its role is "to design, produce, and air by open broadcast television first quality community college credit courses."[31]

Consortia don't just happen. It takes people like Frank Bouwsma of Miami-Dade to get institutions to form a clan. Tagged jocularly as the "King of Consortia," Bouwsma has moved well beyond the college grouping he energized to have "Man and Environment" produced. As Chairperson of the Corporation for Public Broadcasting's year-long study on Post-Secondary Formal Education, he has had his 13-person committee "study in

depth interagency relationships."[32] He has already broken out some different types of media-committed consortia:

1) A group forms in a single TV station's broadcast area so members can share in both the costs of producing a course and any proceeds from its distribution;

2) Colleges join together in one station's area to support the broadcast of a course brought from elsewhere (community colleges in Dallas and Fort Worth combined to capitalize on "Man and Environment" broadcasts over station KERA);

3) Institutions with similar needs and purposes combine within a region;

4) Educators with a common interest in creating a particular course come together from many places, just as 40 institutions talked initially about the concept for "Man and Environment";

5) A consortium is organized for specific ethnic considerations, typified by recent college interest in the conversion of "Man and Environment" to Spanish; and

6) Institutions with production capacities associate (even though they may be far-distant) so that members can subcontract back and forth, drawing on particular talents of one or another of them; e.g., California State, in San Diego, has direct access to a number of old radio actors, veterans of the Thirties, who might be used in recording audio vignettes for colleges elsewhere.

Whatever the particular mechanism, in each case institutions agree to work shoulder-to-shoulder for a common purpose. And the more diverse and widely dispersed the members, the more vital it becomes to have some Henry Kissinger on board to listen, referee, cajole, and knit together all the unravelling strands.

As 1974 progressed, one new consortium of decided significance took shape. The University of Mid-America, a special cluster of Midwestern state universities, will work mainly at generating and distributing

open-learning courses through the various state delivery systems, such as S-U-N in Nebraska.

On high ground, there is strong interest in this mechanism, the consortium. The Commission on Non-Traditional Study recommended that "Increased collaboration among existing institutions should be encouraged . . ."[33] And Dr. Gould amplified the Commission's view in a more recent interview:

> "I'm a great believer in the consortium principle . . . I'm particularly an enthusiast of it in terms of what I know to be the practical elements of our educational situation. Every institution can't provide everything for everybody."[34]

Further, at the Ford Foundation in early 1974, there was equal interest. Staff-member Gail Spangenberg said Ford intends to look closely at the consortium, because "There's got to be more cooperation if they mean what they say about increased flexibility and options."[35]

To justify formation of a consortium for NTS purposes, one can start by looking at the economic facts. Less and less can one institution peel off major sums for producing a high-quality C-TV course. And there is little evidence, either, that many major foundations are looking for the chance to play banker for course manufacture. To be sure, The Edna McConnell Clark Foundation *did* award S-U-N $200,000 in October 1973. It came at a critical time for that project.

Elsewhere, foundation interest in educational TV is minimal, or guarded. In mid-1972, Sloan Foundation staff-members talked of sponsoring a broad-gauge study of instructional television. By 1974, this interest had evaporated. A terse note in April indicated that Sloan "has no present plans to study ITV."[36] From the Carnegie Corporation came word

in February 1974 that "we really know very little about instructional technology and have no active grant-making program in that area."[37]

For its part, Ford has begun phasing out its unparalleled support of public broadcasting -- in this context, the major mechanism for the distribution of C-TV courses -- after 23 years of giving a total of more than $285 million.[38] This has not prevented the Foundation from funding spot NTS projects out of another pocket; that is, its Division of Education and Research. That area has awarded $116,220 to the British Open University's Institute of Educational Technology to develop and circulate information about new methods of student assessment and stronger processes of curriculum design.[39] Another grant ($70,000) went in August 1973 to the Centre for Educational Technology, at the University of Sussex in England, to study 20 selected open-learning systems that use TV and other media. Purpose: to come up with a publishable report that may help educational planners in both developed and developing nations.[40] In both instances, these are intriguing rifle-shot awards. Their results could serve the C-TV community well.

Beyond options like these, Ford intends to take a "hard look" at the consortium device, at S-U-N, and at educational technology.[41] But with Ford's budgets declining, primary funding will have to come from other places -- for example, newly established consortia. This, of course, tosses the ball back to those in and around higher education who lose patience with the insular view, who relish bringing Brontosaurus institutions into new combinations, who travel with briefcases reasonably empty of prejudices, and who bring an innate touch of the mercantilist to the world of learning.

* * * * *

If NTS and its outrider, C-TV, are to become substantial in the Seventies, a new kind of *Humaneness* will have to be transfused into the postsecondary institution's being. This means greater sensitivity for the distant adult who wants to learn. It also means a new kind of feeling for the person clutching the keys to college-level learning, the teacher.

For higher education, perched on a newly discovered San Andreas Fault, the adult learner may mean the difference between a balanced budget and insolvency. Maybe the most revered institutions can shrug off the clues of a gathering dilemma -- the fading of enrollments, the uppercut of inflation on already sky-high tuition costs, the spread of Drop Out-Stop Out. But smaller private colleges have seen the shadows. In casual remarks during May 1974, the President of Hartwick College, Oneonta, New York, described his administration's heightened efforts to create attractive, adult-level, residential seminars in the summertime, just to earn a different kind of revenue.[42]

The crass fiscal urgencies should not obscure a more lofty urgency, one underscored by the Commission on Non-Traditional Study: that evident desire of millions of adults to learn more about something. If this keeps colleges alive, fine! But imagine the social enrichment if at least *some* of those thirsty millions learn what they want to learn in ways convenient to them! It is scarcely original, but America could give itself no greater Bicentennial gift than to formalize national patterns of making lifelong learning attainable, accessible, and appealing for men and women from 18 to 80. Surely this would demonstrate the humaneness of a mature nation.

This may never be more than a pipe dream, however, if a deeper humaneness is not also brought into play toward the teacher. If we want

to build new highways to learning for all mankind, then we must remember that the teacher has a virtual monopoly on both the Tourist Information Center and the tollgate.

Sir William Osler, the widely influential Canadian physician, made far-reaching contributions as an instructor of medical students. He came to see that "No bubble is so iridescent or floats longer than that blown by the successful teacher."[43] Will a new innovation, C-TV, burst that bubble? Will technology make the teacher less important, and shatter the iridescence?

No matter how the layman might reply, many teachers in higher education are convinced that technology will liquidate them. So a kind of standoff has resulted, one that benefits no one. It would seem wise, therefore, to scout for an extra measure of humaneness if anyone is to move at all.

First, how widespread is this concern among the teaching profession? While conclusive data is not at hand, the issue comes up so often that one has to conclude the attitude is prevalent. As Vice-Chancellor of Cambridge, Sir Eric Ashby gave his view of this concern in a 1963 speech:

> "The introduction of technology into teaching and learning at the University level evokes such emotional reactions that it is difficult to persuade some people to contemplate it objectively."[44]

Why do teachers resist the new media and TV? In their thorough Ford Foundation booklet on instructional technology, Armsey and Dahl drew on the available literature to summarize the roots of teachers' defensiveness:

1) A basic conservatism of the educational establishment;

2) A fear of the effects of technology on their roles and responsibilities;

3) The ineptitude and insensitivity of the hardware peddlers;

4) The minimal or non-existent involvement of teachers at every stage of developing courseware.[45]

From the evidence they found, Armsey and Dahl deduced that teacher resistance is "the greatest deterrent" to the spread of technology. Further, they said, "The desire to use technology must either exist or be developed in the teachers." And if it isn't, "instructional technology will fail."[46] It's as simple as that.

In similar vein, the Commission on Non-Traditional Study referred to a series of interviews with 25 leaders of nontraditional educational programs and institutions. These individuals conceded that their "most persistent" headache came from trying to line up institutional and faculty support for innovation.[47]

When he raises his voice on the subject, the teacher makes no bones about the fact that he prefers to do the teaching himself, and *not* delegate it to a gadget. This was the sum of the findings of a 1968 study conducted by Richard I. Evans and Peter Leppmann.[48] Professors were asked to rate various procedures, indicating which ones they personally preferred. The top five:

1) Myself conducting a small class;
2) Myself as a professor;
3) Myself conducting an advanced course;
4) Myself conducting an introductory course; and
5) Myself conducting a lecture course.

Down at number 18: TV instruction supplemented by small discussions. Then, next to last, number 29: TV instruction in advanced courses; and, at the bottom of the list, straight TV instruction for large classes.

Very probably it means little to the aggrieved teacher to find an educator of distinguished accomplishment like Alvin Eurich saying that TV and the teaching machine "have yet to put a teacher out of a job and, in my view, they probably never will."[49] The professor *still* feels threatened, so much so that one has to accept this state of mind as a given and get on with a search for solutions.

If the instructor is to be brought on board, he will *have* to take part, as Armsey and Dahl see it, and support the project.[50] Somehow it must be made more attractive to him to do it. To Dr. Sidney Tickton of the Academy for Educational Development, "the one thing we haven't tried to do is to make TV use worthwhile for the faculty."[51]

Remedies *do* exist. They may call for long-term residual payments -- a royalty every time a teacher's course is used. Or the instructor on a TV project may have to be released extensively from other chores. Whatever the combination is, extra perquisites may have to be formalized, or the project *won't* seem worthwhile. The Commission on Non-Traditional Study agreed. For work as "unusually difficult" as C-TV can be, professors should gain appropriate recognitions.[52] Paralleling this view, the New York State Legislative Commission, writing in 1973, regarded as unfortunate the traditional university policy that rewards the professor who researches and publishes a book, but *not* his peer who toils mightily at turning out a TV series.[53]

While specialized perquisites are far from standardized as yet, the role of the teacher continues inexorably to change. This is hardly an ultra-modern view: Dr. Eurich goes back to the Czech Comenius who wrote in the mid-17th Century that "the beginning and end of our Didactic will

be to seek and find a method by which teachers teach less and learners learn more."[54] Far from trying to cement a case for cashiering teachers, Dr. Eurich has a vision of the fully employed teacher of tomorrow, by no means sidelined, just engaged in a different set of missions:

> "The teacher as purveyor of information, as drillmaster, as Jack-of-all-trades, is obsolete. His new role, that only technology fully realized can create, will be that of a master of the resources of learning, at last afforded time and opportunity for the cultivation of students as individual human beings with a potential to learn."[55]

If this is ever to be achieved in the Seventies, then professors will have to be thoroughly integrated in the whole process of harnessing TV to the purposes of nontraditional study. However, this conversion will never occur, nor will there be any imaginative, flexible design and cooperative endeavor, without a special kind of *Leadership*.

In the ancient "Upstairs, Downstairs" world of the university, those hired to stuff standard lectures into TV packages were usually assigned to the scullery area. For all the onerous work he had to do, the course producer had the status of the building and grounds crew, and sometimes less. Then came a better dawn. BBC media specialists joined the British Open University design teams at virtual parity with the academics. In the same period, the Children's Television Workshop bowed low to content and learning experts -- but, knowing what would ultimately make a good show, proceeded to hire as its Vice-President/Production a man with unquestioned commercial-TV credentials, giving him a salary quite astonishing for "ETV" ($55,000). More recently, University of Nebraska's S-U-N project has listed its Producer-in-Residence, the production team leader, at the level of $30,000.[56]

The meaning is clear: a new kind of competence is being brought into the field of televised instruction. These individuals are grown-ups with business seasoning, accustomed to dealing with everyone from stagehands, to insecure actors, to ad agency account executives. And while a denful of Emmys and a high-entry salary do not automatically make a man a classic leader, it is nonetheless true that he *has* to engender more respect among teachers and academic administrators than the audiovisualist joining the Speech and Theater Department at $12,500, with only a few years "in the field" at best.

Yes, people who know media, or who at least think positively about what media can do for their institution, have moved into positions of command -- as Executive Vice-Presidents, Vice-Presidents for Instructional Resources, Vice-Chancellors, or project Executive Directors. This is highly fortuitous. The broad, pioneering work of NTS requires resolute individuals, but no more resolute than those who, if the decision is made to go with C-TV, will have to forge the television tools for building an open-learning system. The flack won't be any less than it's ever been. But today more things are going for C-TV leaders. It's as simple as this: for the tweedy college administrator harassed in ways unknown in those halcyon years right after World War II, a blue-blazered Mandrake who knows the art and science of television may just have the formula for luring the remote, hesitant adult into the arms of slightly down-at-the-heels higher education.

* * * * *

Recommendations for Action

If C-TV is to help propel NTS out into the community, how can those support words -- Imagination, Design, Flexibility, Cooperation, Humaneness, Leadership -- be translated into the language of action? Yearn as one might, it just can't happen like the TV commercial where, in mere seconds, the greasy kitchen sink dissolves into a clean one, sparkling with stars.

To get results will take thought by new combinations of people, inter-institutional commitment and collaboration, time, and money. And who will take the lead? There's the rub. While the horizon *is* brighter for NTS and C-TV today, and while the players' dugout *does* have recruits, the situation calls for coaches, a general manager, and a front office, in short, a dedicated organization.

Perhaps it would be best, though, to defer consideration of what institution could function as manager. Instead, we might fix on what can be done to give some lift to the vocabulary for C-TV support. This process should bring into view the type of agency to grapple with the action tasks.

Begin with the need for *Imagination*. Admittedly, it is something that *no* agency can order up like colored bubbly water out of a vending machine. Nevertheless, the coordinating organization (CO) could stimulate creativity in C-TV by a combination of demonstration and reward in these ways:

1) Sponsoring a series of *regional workshops*:

   * These would be scheduled at higher-education institutions which have started NTS projects that make use of media.

   * A "pilot" workshop should be scheduled in May 1975, to work out the kinks. Then, starting in September 1975, a three-day session would be held every four weeks in each of six regions, one after the other. A member of CO's Executive Committee would chair these meetings.

* At each, the host institution's project would be put on display. Spokesmen for other C-TV activities would describe how imagination has been applied to design, delivery, audience response, and creation of final product. There would be ample time for peer critiques, recommendations, and applause.

2) Establishing at least *two types of fellowship*:

* Creative individuals with track records would be offered limited-term fellowships to take their experience to others just starting on C-TV projects.

* Newly graduated teachers could be awarded six-month to one-year fellowships to understudy at sites like S-U-N, or Miami-Dade. They would be picked on the basis of their explicit interest in media uses for NTS. They would be challenged to participate creatively, and then write after-action reports useful to other neophytes.

3) Initiating a *series of awards*:

* These should be made in a fistful of categories for those engaged in C-TV. Teachers, designers, writers, producers, and promoters -- all should be able to participate. In each instance, the award would be for exemplary imagination appropriate to the category.

* These awards should be meaningful -- a physical trophy, generous cash, and a public ceremony. Suitable promotion should spread word of a professor's award to his home institution and among his peers.

4) Underwriting *articles and monographs*:

* A strong case can be made for starting a quarterly or semiannual publication. This might be farmed out to a School of Education committed broadly to NTS and to media uses. With the focus on imaginative practices, key figures at institutions involved in NTS could be invited to write analytical and summary reports for the bulletin on C-TV creativity.

To simulate the practice and awareness of *Design*, the CO could exert its influence in these ways:

1) Scheduling a *design conference*:

* At this, design-team representatives from current C-TV (and related) projects would share their experiences through presentations and round-table discussions.

* The first annual conference could be held in October 1975. A planning team should start work in January 1975, to assure substantial benefits for participants.

* While learning psychologists, producers, graphics experts and, of course, instructional designers would attend, there should be no subdivision of these individuals into vocational clusters. They should continue to work together, to underscore the need for ongoing cooperation and line-crossing.

* The conference committee could create a "problem situation" to set before the participants at a work session. This might be the seeds of an incipient project for which a design approach needs to be conceived. Squads of specialists could be asked to come up with recommendations; that is, brainstorming with a practical outcome.

2) Sponsoring *communication about design*:

* On the theory that design-team members can learn from the work of others, the CO might invite an agency like S-U-N to collect and disseminate information about the philosophy and mechanics of design in various projects. This should be funded for at least two years, with renewal possible after an 18-month evaluation. One vehicle for communication: the proposed quarterly.

3) Encourage *research into design variations*:

* The process of design should be challenged periodically by competent analysts. They would be asked to come up with alternatives, or to validate existing practices. They could also engage in discussions with project protagonists for synergistic purposes.

* In time, it might pay to set up an Institute for Project Design, housed at an existing NTS center. It should analyze existing design processes, research alternatives, send forth apostles to needy sites, train disciples, and publish design SOPs from in-being projects.

The third driving word, *Flexibility*, has a family relationship to Imagination and Design. As a practical matter, it may be wise to attach this third word as a modifier of Design, and treat and encourage them as a unit. In my case, the CO could show its respect for Flexibility by:

1) *Underwriting presentations* from project entrepreneurs:

   * In professional journal or conference showcase, a project spokesman could speak directly to the evidences of flexibility in his project's concept, design, and execution. The objective: to show those just getting their feet wet in NTS the ways a specific project tried to make it easier for the student at home. What backup was there in case he missed one week's TV broadcasts? How have radio, cable TV, video and audio cassettes, phone feedback, range-riding tutors, and writing and reading assignments been choreographed to support the basic C-TV design?

2) *Providing rewards* for flexible innovations:

   * A "convenience rating system" could be created to appraise projects on the basis of their convenience for the home student. Project directors would be invited to submit entry forms describing their venture in terms of its unique flexibility. A suitable forum, such as the National Design Conference, should be designated as the showcase for rewarding winners.

3) Preparing flexibility *criteria and models*:

   * Much as S-U-N's Dr. Cavert has done with the principles of instructional design, specialists should be invited (and paid) to write criteria for establishing learner-sensitive flexibility in project design.

   * At the same time, models could be structured for projects with different character; e.g., a C-TV venture limited to a single station's broadcast area; one that is conceived for a regional consortium; one that will (or won't) have fallback access to a series of learning resource centers equipped with video cassette players; one demanding an unusual amount of essay correction.

Moving to the area of people-to-people relationships, one could hardly expect a CO to turn itself into a Dale Carnegie branch office or a training site for Avon and Glenn Turner salespersons. At the same time, it may be possible to encourage the loosening of human barriers in the hard work of making an effective reality of C-TV. In respect to *Cooperation*, the CO might:

1) Encourage and spotlight *design-team cooperation*:

* Through site visits or in-depth surveys, CO representatives would gauge the degree of cooperation manifested before, during, and after a given project. This information could be used for:

  a) Case histories of those ventures, with emphasis on human relations, as a means of guiding others about to begin a project; and

  b) Rewarding particular teams displaying the kind of cooperation essential to smooth functioning.

* Someone like the BBC's Richard Hooper, already familiar with both British Open University methods and American instructional television, might be invited to visit selected sites to assess them in a number of respects, *including* the team mix.

* Projects should be advised of the official interest in improving intra-team cooperation. Those with effective techniques for achieving good working relationships would be asked to share their trade secrets for the benefit of newcomers. Suitable rewards would be proffered.

* For any innovators planning to set up teams, the CO could become a broker for the latest information on how to maximize a working group's effectiveness.

2) Encourage *cooperation in sharing materials*:

* It would be essential to comb courseware-producing institutions for attitudes on:

  a) Letting outside educators use their materials; and

  b) Accepting courses produced by outsiders.

  This research, an expansion of the survey undertaken in 1973 by Purdue, would be designed to show the size of the problems involved and to provide a basis for building responses.

* A CO officer could issue a statement on materials-sharing. Aimed at chief executives of higher-education institutions, it would lay out the facts -- how many colleges produce C-TV, where one might buy or lease materials, what C-TV libraries exist, and what typical costs are for high-quality TV series. It might even describe the qualitative aspects of courses available for more-than-local use.

* Efforts should be made to gauge the College TV Course Clearinghouse set up in the spring of 1974 by the University of Wisconsin-Green Bay. The CO could aid this agency through recommendations for augmented services, and perhaps with funds for accelerated information gathering and dispensing.

* The CO should ascertain what organizations are responsibly involved in researching the factors that inhibit materials-sharing, such as copyrights, clearances, and faculty perquisites. It may be that others (the Corporation for Public Broadcasting, the American Association of University Professors) are doing what needs to be done to understand this set of inhibitors. If not, the CO might collaborate with other higher-education associations in setting up an office to:

  a) collect all the appropriate information,

  b) spread recommended solutions to all NTS innovators, and

  c) respond on a rifle-shot basis to spot problems as mediator and well-grounded third party.

3) Facilitate *cooperation among institutions*:

* The CO could write a legal brief for forming consortia, citing precedents and showing how problems of C-TV manufacture and use can be hurdled when a group of like-minded organizations is put together.

* A clearinghouse function might be undertaken either by the CO or by an institution it invites to take on the job. This brokerage would collect and distribute facts and figures on any of the consortia established for NTS and C-TV purposes. Membership, objectives, budgeting, and administrative practices would be spelled out for those considering the consortium device.

* Through survey methods, it could conduct a periodic "validity check," to see if each consortium is meeting its own objectives and standards. The survey might also show whether narrow-gauge cooperation has led to broader, positive relationships between institutions.

* The quarterly or semiannual bulletin would be an appropriate forum in which a consortium participant could write on the variety of consortia set up for C-TV purposes and their relative effectiveness.

* When appropriate, CO officers might look for the chance to sit in on initial meetings among educators considering the formation of a new media-based consortium. The visiting experts could advise on experiences of other clusters, post warning signals where necessary and, in general, act as midwives.

The term *Humaneness* may have a weak, nonacademic ring. Nevertheless, it has a distinct place in the socially sensitive design and implementation of a C-TV project. This report envisions application of the humane touch at two levels, and again it sees no bar to having the initiative vested in the CO:

1) The humane touch should be applied to *sensing the wants, needs, habits, and ways of the potential audience* for C-TV.

   * The CO should push for, if it does not actually launch, panoramic studies of the off-campus adult audiences that may be served by C-TV. If it must limit itself to urging, then there will be ample opportunities to make the necessary points -- in speeches of key officials, in recommendations to any institution in the NTS novitiate, in packaged criteria for designing a C-TV project, in construction of models for the benefit of program makers.

   * At the CO's behest, subcontractors could update the research base established by the Commission on Non-Traditional Study. Among others, CPB's Dr. Jack Lyle, Director of Communication Research, would be most effective in this work, possibly using the network of adult panels established by CPB with grants from the Ford Foundation. It will be essential to know how far adults are willing to reach to acquire new learning, what kinds of technology-carried education they will accept or reject, and how they might react to the various devices available to support open-circuit course broadcasts.

   * Having sharpened the fix nationally, the CO might work up guidelines for any local C-TV plan. Various questionnaire models could be offered to colleges and universities entering the NTS lists for the first time.

2) The humane touch should also be refined *for the benefit of the teaching profession*, so often labeled the main line of resistance against educational TV.

* First, the *complete* nature of the teacher's concerns about media must be fully understood before any antidote can be prescribed. To reach this level of understanding, the CO might form a commission made up of teachers, representatives of their relevant associations, educational administrators, course developers, and legal and business specialists.

  ** Through discussion and field interviewing, this body should identify *all* the concerns of teachers about TV and media, gathering any evidence that media have resulted in job losses or downgrading.

  ** Having labeled the grievances, the commission would stake out remedies. These would run the gamut from residuals and release time to extra salary increments for a more-than-local instructional series and institutional credit for participations in C-TV. Costs and legal implications should be defined.

  ** The commission might then prepare standards for any NTS innovator's use. These should include specific recommendations on *full involvement* of committed faculty members, from first discussion of a project, through design and production, and out along the time line to decisions about revision and course retirement.

  ** Through a discrete publication, the body would spread the word of its findings and advice. Members would seek occasions to explain their conclusions at appropriate meetings and conventions.

  ** To make this a dynamic contribution, the CO should consider the need for an ongoing, follow-up mechanism. Perhaps this could be lodged at a School of Education. Its obligations would include collecting all data on the status of faculty-project relationships in the year following publication of the commission's report, offering help to parties embroiled in seemingly insoluble standoffs, and updating the baseboard recommendations.

* On a regular basis, the CO ought to add to its information reservoir any indications of how C-TV has affected teaching faculty at their institution. Signs of negative impact should be explored and evaluated. And C-TV's cost benefits should be searched out, so that the CO can be current when questioned about economic overtones of media use.

* CO staff should prepare itself to respond on copyright questions. Through an annual survey, it could summarize the number of institutions reserving for themselves copyright on a C-TV course, how many have assigned it to a teacher, and what the respective results are.

* To enhance teacher participation in C-TV and similar media efforts, professional development courses at a graduate school could be established. These short courses would bring teachers face to face with the new media, examples of excellent and bad C-TV, the prototype design processes undertaken by S-U-N and others, and anticipated tasks that teachers will be taking on increasingly in future years (such as greater counseling).

Then, finally, there is the transcendent need for *Leadership*. Part of this will have to come from the coordinating organization that evolves as the most plausible one to give real meaning and effectiveness to C-TV within the context of nontraditional study. But this CO must also concern itself with seeing that trained leadership becomes available for the media-based projects as they take shape. The CO could take part in this search-and-development mission by:

1) Encouraging the growth and training of project leaders:

   * While it may never be possible to turn the pipe-biting savant into a C-TV entrepreneur, it seems quite feasible to recruit Renaissance men and women for that kind of role. The CO, or a delegated agency, could become a central-casting equivalent for:

     a) specifications for the ideal project leader (drawn from a composite portrait of the project quarterbacks now at work); and

     b) actual names of men and women who might be candidates for position openings.

   * The CO should invite a major graduate school to design a series of seminars for potential C-TV leaders, much as Harvard does for business executives. These might vary in length from two weeks to three months. Individuals with careers under way would be eligible. The seminars should include:

a) full exposure to the principles of NTS and to working examples of effective programs;

b) case histories of C-TV projects -- from the first dream right through execution and summative research;

c) workshops posing design challenges, from audience research to production of actual course modules; and

d) discussions with key project officers like S-U-N's McBride.

* For the fledgling teacher, freshly certified, there could be year-length fellowships plotted to expose the individual to the realities of the NTS world. The purpose would be to groom the teacher for a career in the design and management of C-TV course projects. During the fellowship, it would be appropriate to expand his or her knowledge of learning psychology, audience research techniques, media options, production methods, and ways of achieving flexibility.

* The CO should try to enhance the status of C-TV leadership by inviting them to take part in national forums or to serve on visible subcommittees. As a result, these men and women might gain in prestige within their own institution and among their peers. In parallel, the CO should maintain a directory of C-TV managers, as a resource for those about to set out on the NTS trail and in need of advice, staff, and reassurance.

* * * * *

Who then will lift the lance against the Ominous Knight? What organization should don the parti-colored armor of statesman and strawboss, and dedicate itself to action fully as much as to cerebral discussion, Olympian detachment, and delegating the fight to others?

If America had a national university, it might incorporate the various NTS-related activities described here. Through extraordinary labor five years ago, Britain brought off establishment of a national university to

reach at-home students. But in America, where localism is very much the way of our educational world, that prospect seems unrealistic and out of sight.

Could a single strong university do the work proposed? Again, this seems less than logical. Very probably a large, multifaceted institution *could* take on *some* of the action. Or half a dozen could become regional centers, housing NTS workshops, providing fellowships, generally keeping the stew simmering. But the nature and newness of NTS suggests that one university, no matter how strong, will have its hands full just implementing any outreach in its own market, without even thinking of coordinating all NTS activities, border to border.

Certain entities do have the stature and visibility to be an NTS bastion, but operations would be out of character for them. This applies to the National Institute of Education, as committed as it may be to S-U-N. It would also apply to the foundations which, by and large, sidestep direct activities, preferring to stimulate others to take on specific workloads.

A case *could* be made for putting big chips on the Corporation for Public Broadcasting. It is reasonable to speculate that its educational studies now under way might formulate active managerial roles for CPB. After all, the Corporation was brought into being by Congress "for the purpose of lending national leadership to the (public broadcasting) industry."[57]

However, there are some aspects of CPB's nature and posture which make it doubtful that the Corporation is *ideally* suited to carry out the recommendations contained here (insofar as they are national educational activities):

1) In its six years, CPB has not yet become recognized as a *significant* American institution. The chances are that it is much less known than "PBS" -- the Public Broadcasting Service -- which operates the noncommercial TV network system on behalf of public TV stations.

2) By the legislation creating it, CPB is obliged to concern itself primarily with electronic delivery systems (TV and radio), and it has no official, statutory place in the hierarchy of American education.

3) In the past several years, it has moved toward funneling more and more of its funds into supporting *local* public TV and radio -- into localism, in short. So it tends to skirt direct involvement in operations that are national in character.

4) Lacking a toehold in higher education, CPB would have to chisel one out of hard rock. No one should expect that it will be easier for the Corporation to make long-lasting friends in postsecondary education, with its many independent fiefdoms, than for the local public TV station to do so.

In Britain, the BBC has turned out to be a very substantial, operational broadcasting agency with broad production prerogatives. By contrast, CPB has no operational assignment under its legislative mandate. Nor can it directly produce programs. Bearing these differences in mind, one might look back at the beginnings of the British Open University. When they moved to set up a new, modern university, the British hired educational administrators to get it off dead center. And *then* the Open University went to the BBC for the essential radio and TV services.

The parallel in the context of this report seems to be a reasonable one. If NTS is to flourish -- and C-TV within it -- whatever overriding management there is *must* be vested in an educational institution, body, or agency. It need not be degree-granting. But if it is not fashioned from the stuff of education, then the waste motion could be both remarkable

and disastrous. Only by being *of education* does it have any hope of surviving and growing.

An organization like the new Council for the Progress of Nontraditional Study could decide that it has (a) the close kinship to education, and (b) the leverage, to do any tasks articulated here, as well as many others. Consider that it is chaired by the Chancellor Emeritus of SUNY, Dr. Gould. Consider further that 13 of its 28 members have direct ties to postsecondary education (four of them are chief officers of colleges or universities). The importance of this is indisputable. Whatever the umbrella organization turns out to be, it must be clearly marked with the colors of higher education, and it would be, a strong disadvantage from Day Number One for it to be tagged as part of that scary "roll tape!" world of electronic delivery systems.

On the face of it, the Council *can* be active if it is so minded. Its formal announcement March 31, 1974, included the statement that it could "promote the progress of innovative approaches to education."[58] It will also "initiate and publish studies (and) suggest projects worthy of development and encouragement".

It is up to the Council to decide early in its life whether it can take an active part in fomenting NTS and proceed to breathe life into the catalytic words incorporated here.

For the soundest of reasons, Council members may decide that their modus operandi has to be different. They may choose to plan, coordinate, stimulate, bring interested parties into conjunction, communicate widely, and perhaps even initiate. But operate? Perhaps not. Therefore, faced with the need to pursue a series of improvement missions, the Council

still could invest time and money in determining what kind of agency *should* pick up the burden. Further, it could scan the horizon to see whether appropriate candidates exist. If they do not, then can a suitable "Center" or "Institute" be established and put into gear? On reaching this decision, the Council would be obliged to share in the task of raising the money to bring this nuclear entity into being and to fuel it for three to five years.

Only six months old, the Council is unique. No similar organization exists. By its very nature, it is a leadership enterprise. As such, it should be concerned deeply about *process* from this point on, as well as about *substance and theory*. In other words, it should be wondering who will run what type of railroad?

Within the more narrow scope of this report, it seems appropriate for the Council to worry about C-TV. It might do this through a subcommittee. Or others could be invited to undertake an analysis for it. In either case, the object would be to consider whether, in 1975, open-circuit TV is optimal for bringing credit education to adults at home. If it has grave inherent weaknesses, what are they? What diet supplements can be prescribed to overcome those weaknesses? A thorough, responsible report on this aspect of NTS would be of definite value at many places where open learning is being weighed.

For the sake of final emphasis, it is this report's conviction that it will take an organization like the Council, with its administrative talent, prestige, and visibility, to do the work that has to be done to make C-TV truly effective within the outer limits of NTS. No consortium will be close-hauled enough to act in pursuit of broad, national benefits.

No group with the imprint of media on it will *ever* have the clout to ascend the heights. No committee with only marginal access to university and college presidents has better than an Irish Sweepstakes chance. In this decade of the Seventies, the degree of difficulty in performing the C-TV phase of NTS with distinction has a first-class order of magnitude. People of first-class capabilities, assembled in a nationally prominent alignment of some kind, must be given the directive to manage the task.

* * * * *

For the ever-struggling educational broadcaster, these are heady times. The ground was never firmer for using open-circuit TV to transmit college courses. Now that the nontraditional study movement amounts to something, C-TV can really come out into the open.

So, maybe the educational broadcaster can be pardoned for feeling euphoric. But he still must not forget the risks. The late C. G. Jung wrote of a colleague and his recurring dream of mountain-climbing ecstatically right into space. Jung warned him never to climb again without a guide. Somewhat later, the man set off with a young companion. Someone below saw the man "literally step out into the air . . ." Man and companion plummeted to their deaths.[59]

Regrettably, C-TV is not home free, as yet. Father Thomas Hesburgh of Notre Dame lamented to George Bonham of *Change* that "we live in an age of pygmies."[60] This might not be so apparent if one has spent his working years at lowly institutional altitudes, looking up to the academic hierarchy for some benison. But let Father Hesburgh's comment serve as a nagging reminder that railroad ties and tree trunks will still be found across the roadway. There is an absolutely leviathan task to be done to

convince higher education *en masse* that the adult student, off campus, is a genuine candidate for open learning; that the media, if they are used to stretch out a hand to that adult, can help, and will not automatically injure the educator; and that the teacher, like the rest of us living through pell-mell change, stands to receive new, no less relevant roles as the era sweeps onward.

We approach a time in America's history when we can pause to honor the elements in our early character which led us into nationhood. We were no monolith in those first days. Rather, we were individuals clutching each other's hand at last in staunch defense of the single human being's dignity. If we truly mean what we have said innumerable times about this fundamental, then we should heed the words of the Commission on Non-Traditional Study and act accordingly:

> "A nation that respects individual potential and wishes to assist everyone toward full personal growth cannot help but believe in full educational opportunity. With such a belief, the nation declares the essential validity of individual human dignity."[61]

FOOTNOTES

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APPENDIX I -- Dr. Samuel B. Gould

Interview with Dr. Samuel B. Gould, President of the Institute for Educational Development, Chancellor Emeritus of the State University of New York, and Chairman of the Council for the Progress of Nontraditional Study. Dr. Gould was interviewed May 23, 1974, at the Institute's office in New York City.

Q: I'm wondering if you could tell me what you perceive to be the differences between the present situation in respect to nontraditional study and the period in, let's say, the mid-Sixties, when the State University of New York started the University of the Air.

Dr. Gould: Well, when we started the University of the Air, we weren't even thinking of the term "nontraditional study". We were simply doing what I suppose many others were also -- groping for ways to reach out to more people and provide some kind of education to them in a way which didn't require more buildings and more faculty. As it happens, using television courses as a way of carrying out certain college-level work is a perfectly normal process today, much more accepted than it was in 1966. We still have the same problems with such courses in that you always worry about their quality; there is the problem, too, of getting them on the air -- and this turned out to be a major problem for the University of the Air. We had to pay an enormous amount of money to the public television stations in order to get our courses broadcast. But I think TV use is certainly going to be part of the way of the future, and this way is going to develop at a much more rapid rate than ever before, simply because the demands of clientele are such that it makes it quite logical for this to happen.

Q: Would you say that a distinct difference between 1966 and the present is the increase in demand by clientele?

Dr. Gould: It would appear so. I don't know of anyone who made a real effort to find out how many people wanted a lot of these things before. Now, through the Commission on Non-Traditional Study, we did make that kind of effort. We did go out to find how many people said they wanted to know more about something and were willing to spend some time to find out what they needed to know. And we found that they run into millions and millions of people. Well, this opened a whole new prospect for higher education, particularly on the adult level.

We also discovered that it was obvious that you have to provide a diversity of ways by which people are going to be able to acquire this knowledge. Under those circumstances it seems that television courses are one way of doing this. It can be pretty expensive to develop courses, and also if you have to pay a great deal of money to broadcast. But there have been further developments that make TV an even more practical possibility -- for example, cable television, with certain channels assigned to education.

That means it ought to be possible to do this at a much lower cost. Then, much more material is available than we had previously. It varies in quality, but there's some pretty good stuff. And there is a general feeling now that institutions might get together more often and create courses; this would lessen the expense to any individual institution and increase the quality of the courses, as well.

Q: When, in your experience, did the surge for nontraditional study begin to be noticeable?

Dr. Gould: Well, you may remember that the Commission on Non-Traditional Study was created in 1971. There had been a considerable amount of interest before then. I think that what brought it to a focal point was the work of the British Open University. Everyone suddenly became interested in what was meant by an external degree program and the whole pattern the British Open University was following. What particularly interested me, for instance, was that they were trying to reach out to a new clientele. It was clear to a great many of us that if this were true in Britain, it was also going to be true in the United States. The question then was: is this the pattern for us, or do we have to look at a lot of other patterns? We proceeded to do that.

So it was about at that point, when the British Open University appeared on the horizon. There seemed to be a parade of people going to Great Britain to see what this new Open University was. I think that had a great effect on drawing the attention of the general public to what seemed to be a new approach. Actually, it wasn't new at all, but simply was getting more attention than ever before. Then, coupled with that was the realization that we were not going to be able any longer to provide the financial resources that meant more buildings for more people, more faculty to take care of more people, and so forth. And then our research told us very clearly that one of the greatest obstacles to the development of the open approach was that people couldn't get to where the learning was going to take place. They couldn't come to a college or university campus, or some other central location; they had to have something that was convenient, in their own communities or homes. The interesting thing was that when we began our studies in 1971, we were all alone; by the time we finished in 1973, we found that all kinds of institutions and people were involved. The whole movement seemed to have had a tremendous change during that time.

Q: I can remember reading an article in SUNY's new magazine back in 1966 in which you wrote about the need for offering education to freshmen and sophomore students at home.

Dr. Gould: Yes. I've always thought that altogether too much emphasis has been placed upon the campus of an institution and on the fact that learning only takes place under certain very carefully controlled circumstances. I've never believed that learning has to be limited to the classroom and campus. I've felt that there are many, many ways by which you pick up education. I still believe that, and I think that we're going

to recognize this more as time goes on, not necessarily because everyone wants it that way, but because it's going to be the only way we can afford it.

Q: Now, would you place media again in this context, Dr. Gould? My concern is primarily with open-broadcast television. Do you see that as being a useful component within this extension of learning?

Dr. Gould: Well, I think that open broadcasting is going to be one component. The fact that it has a certain inconvenience built into it may mean that other uses of the media may be either of equal or greater importance. For example, with the creation of courses for television that can be used again and again, the use of video tapes or video cassettes would be much more practical for the student. The opportunity for any student, anywhere, to draw such tapes or cassettes out of the library or some central source nearby and to use them in his own home, at his own convenience, would seem a much more likely prospect for the future than to have the student waiting in front of his television set for a broadcast. And another way, which is certainly feasible, is to have the student simply tape what comes over the air; he doesn't have to be there when it's taken off, and then he can play it back at his own convenience. So there's obviously an enormous role for the media to play, whether it's television, or radio, or film, or any of the things that are developing. Anything that makes it easier for the student to learn, both in terms of what kinds of materials you have and the methods of presentation and -- access to it -- I think is vital to explore from now on.

Q: In this respect, the fact that open-circuit broadcasting requires a set schedule may be a disadvantage.

Dr. Gould: Yes, I think it's a decided disadvantage. This is why I place so much hope in either the opportunity to record the program and then reuse it, or to use cassettes. This is why I am also very much in favor of the module approach, rather than the course approach. This is where you break a course down in parts and the student can take whatever one he needs at the moment.

Q: Which leads to the inference that there will have to be a much greater emphasis on instructional design, when you start talking about creating modules.

Dr. Gould: Some are working on that very approach now. The idea of teams of people representing the academic phase and the skills necessary to the media -- these are becoming more and more the pattern by which television courses, or modules of courses, are beginning to emerge.

Q: Would you comment about the role of faculty in nontraditional study and, as a sub-heading, their place in developing media materials?

Dr. Gould: Well, the role of the faculty is crucial. It's one of our greatest unresolved problems. I believe that until or unless we create the opportunity for faculty to be reoriented to this whole new style of learning, to understand that they will have to acquire new techniques and

will have a different kind of relationship with students, to have a part in building those courses that we were talking about a moment ago -- roles that they are thoroughly unfamiliar with and a little bit fearful of -- until that begins to happen, I don't think the nontraditional movement is going to move as it should and as it must. This means the launching of a nationwide project or program, whereby the opportunity is afforded to faculty all over the country to get this kind of training and reorientation. They have to first develop a different attitude toward all this. They're not only fearful of it, because they're unfamiliar with it and don't know what their own capabilities are, but they also wonder quite frankly about the quality that will come out of this. Actually, the quality can be what they want to make it. But they first have to have some fundamental knowledge that they can use. This is going to be a big process to go through, and the sooner we can get started on it the better. This, incidentally, is one of the points which our new Council on the Progress of Nontraditional Study is addressing itself to.

Then there is the role of faculty in counseling individuals of all ages who want to learn more about something. This is also something the faculty are relatively unfamiliar with. We're talking about being able to sit down with a student, finding out what his motivations are, determining what his particular needs may be, trying to shape the sort of program that is best for him, discovering where the things are that he needs, holding his hand occasionally when he's not doing so well. This is a whole different kind of function for a faculty member. And some, I'm sure, will have a great deal of difficulty adjusting to it. Some will never adjust.

New faculty, as they emerge, should be trained to an understanding of all this. This means reaching into your schools of education around the country. They have a very key role to play, and to my knowledge, they have not yet understood that role. They need to change sufficiently to fulfill the requirements of that role. It's a long, hard pull. But it's going to have to happen.

Q: How do you see the consortium as an organizational device serving to extend nontraditional study, and in this instance, developing media materials?

Dr. Gould: Well, I'm a great believer in the consortium principle, whether it relates to nontraditional study or anything else. I'm particularly an enthusiast of it in terms of what I know to be the practical elements of our educational situation. Every institution can't provide everything for everybody. And when you can bring together a group of institutions, each of which has certain strengths to contribute to a total, you then can offer to the student much more than you would be otherwise able to offer. And if the institutions have agreements among themselves, involving acceptances of credit and the handling of students from one institution to another, and they are able to divide up the total responsibilities, these things can extend beyond the mere academic side into the administrative area. When you get that kind of relationship, you not only add great strength, but you also add great efficiency and economy to what you're doing. At least it's possible to do it that way. To me, a multicampus university system is a type of consortium, in a way, because the sum of

the strengths of the different campuses of the university system is greater than the parts of the system. It's interesting to see that other countries are beginning to look carefully at this, too. So I see this as a very natural outcome, particularly where the student has become more and more mobile as he moves from place to place and it becomes necessary for him to deal with more than one institution. It's like countries that have visas to cross the borders. The student has got to be able to take his credits with him wherever he goes, or at least have a place where they can refer to these credits easily.

Q: Institutional isolation has no part in it?

Dr. Gould: No. It's something that's somewhat foreign to our thinking, those of us who went to traditional institutions and were brought up in fairly traditional ways educationally. It never occurred to us to even think of taking a course somewhere else. That was almost disloyal. I think this is going to change. Now, we may lose a certain emotional tie with a single institution as a result, but I think something else is going to replace it that may be even more important from an individual learning standpoint.

Q: The impact of a consortium on facilitating media production is considerable, isn't it?

Dr. Gould: Oh, yes. Institutions ordinarily are unable to do a first-rate job by themselves in the development of sophisticated materials. The only way you can really do it is by having groups of institutions come together. I think that kind of an approach has great strength academically because you can get the best of a number of institutions to concentrate on a particular course development. It's basically the only way, both for the development of the material and afterwards for its use. You can distribute it much more easily, and it becomes available to so many more people in so many more places.

Q: Dr. Gould, would you conclude by defining the purposes of the new Council for the Progress of Nontraditional Study?

Dr. Gould: Well, as you recall, we had a Commission on Non-Traditional Study which had a two-year life and which finally wound up with a report called *Diversity by Design*, which included 57 separate recommendations, things that the Commission felt were important to examine and to do something about. It's gratifying to see that a number of these recommendations are being acted on now, some of them much more rapidly than I had ever expected. For example, our recommendation about the broadening of the opportunity for the student to receive credit for work done. Credit is now being evaluated for students for courses that they might have taken in business and industry.

It became obvious to us at the end of that two-year period that we had only really made a start. So it occurred to some of us that we should have a follow-up and create a new council which, as its major functions, would monitor what is happening around the country, make this knowledge available generally, try to separate what seems good from what is not so

good, see what unanswered questions remain, and then devise ourselves or get other people to devise projects and programs that would help to meet some of these needs. The Council is intended to be a somewhat indefinite one in terms of its life. We expect that it will go on for at least five years, which ought to give us a pretty good notion of what kind of progress can be made. It will change its personnel on a kind of a rotation basis as time goes on, so that we will at one time have perhaps a little more emphasis in one area, and then it will shift over to something else later on. I have great hopes for it. I think it could be a very important factor in monitoring, in encouraging, in making sure that there is quality in whatever is done, and in keeping people aware of the basic fact that if we talk about education as an opportunity for everyone, then we're going to have to do something about it.

Q: Would the uses of media be among its concerns?

Dr. Gould: Oh, yes. They would be very much among its concerns. For example, one area that we touched on in *Diversity by Design* was the area of satellite broadcasting. I think this has great potential. Nobody knows much about it yet. We need to do something between now and about 1980, when we will be able to use satellites in this country. They may make a revolutionary change in what we can do through the media, both in terms of the amount that we can get out and also the costs involved. This should lessen the cost tremendously. At any rate, there are people on the Council who represent knowledge of media.

I should emphasize, however, that the media represent delivery systems. And they don't represent the content of what we want people to learn. We're inclined to feel that if we've got television, then we've got the whole thing right where we need it. But it depends on what we put onto that television. Only now are we beginning to see how difficult it is to do the job right -- the amount of time and care and organization that has to go into a thing like this. And when you look at the outstanding things that have been done in educational television of an instructional nature, like "Sesame Street," you begin to see not only what it means in terms of effort but what it means in terms of cost, as well. Now, the question is, how much more of this can we do, and should we do, or are there other ways to approach this instruction? It is questions like these that we need to answer.

Q: Broadly viewed, would you say nontraditional study is here to stay?

Dr. Gould: I'm quite certain of it. Maybe it's because I've dealt with it so much that I have a bias about it. I think it's an inevitable kind of movement, and not just in this country but all over the world. If you read the report called *Learning To Be* of the UNESCO Commission headed by Edgar Faure, you will find that it is almost a replica of our own Commission report, in terms of its recommendations. It recognizes from the very start that the nontraditional, open approaches are the new and proper ways by which learning must be disseminated from here on. When you get a country like France talking about nontraditional education, in a nation which has had the most rigid traditional system there ever was, it makes you realize

that something's beginning to stir. That something is a recognition of the individual, a recognition of his or her need, and how that need must be met in some kind of individualized way.

Q: Thank you very much, Dr. Gould.

APPENDIX II -- Maryland College of the Air

This description of the project sponsored by the Maryland Center for Public Broadcasting represents a condensation of several interviews conducted by the writer on June 13 and 14, 1974, with Dr. Frederick Breitenfeld, Jr., Executive Director of the Center, and Richard W. Smith, Director of Development Projects at the Center. R.B. indicates Dr. Breitenfeld, and R.W.S., Mr. Smith.

Q: I wonder if you would summarize as a start the history of the Maryland College of the Air in your experience. Did it come out of your own personal convictions?

R.B.: Yes, we in Maryland had the good fortune of building a physical plant, activating it and bringing to life the original ideas and projects. That is a distinct advantage over inheriting an institution that has existing traditions, programs and problems. (We made our own problems!) I realized that if we are going to use state tax dollars and be evaluated by the legislators who dole out that money, we had better stick pretty close to the traditional and accepted services, one of which is college education. That's a lot easier to accept for a newcomer to our business than an "American Family" project. So, from the beginning, I thought it would be a good thing, not only for the education provided, obviously, but also in helping us take our place among institutions in the state, quickly. And by good fortune we had Dick Smith already on the staff in another capacity.

Q: And his credentials in this case for being assigned to the project were . . .?

R.B.: His interests and his clear background in college and university work, consulting and fund raising. He knows more about colleges than most people you and I know.

Q: So that you assigned him as Director of Development Projects with the portfolio to concentrate on this, on the College of the Air?

R.B.: Yes and no. You can say that. For the first year, his title was broad. He was not going after government grants. He was not doing industry underwriting. We gave him an assistant to set up a business and industry project, and he oversaw that. This idea titillated his imagination, which is always an encouraging thing, and one of the reasons for the success is that Dick was there. With an apathetic guy, it wouldn't have come off.

Q: Were there any models that you had in mind when you set up shop here?

R.B.: No, Dick thought about it and simply came up with the idea of trying to interest some community colleges, and we just blundered ahead.

Q: So that in the main you have written your own formula for the College of the Air.

R.B.: And I think everybody should. If we tried the S-U-N idea, or if we tried the Chicago thing, it probably wouldn't work, because we are in Maryland, in a different time.

Q: Can you give me an approximate reconstruction of the chronology involved in this?

R.B.: The Center went on the air in '69. In 1970 we called the colleges and tried to get the deans interested. Through 1970 they had their meetings and their hassles and then by the fall of '71, we finally had something on the air.

Q: All right. Now, you came in with your own multifaceted background, including an interest in education. Did you have any indication when you came in that there was a body of demand for this kind of service?

R.B.: It appeared to me that American education and the American population are in a state that would make the answer to the question rather obvious. I think we can go into any market at any time and declare that we need better adult education, better college courses, better vocational education, and be absolutely correct any place in the United States.

Q: In your judgment, then, it was not necessary to go out and put a finger in the wind . . .

R.B.: No, I think educators tend to waste too much time with that kind of trepidation.

Q: Let's go on into the question of the role of the agency in bringing such a project into being. There is the alternative that it can be done by a public television station. There is a relative of that which is to have a statewide authority, such as yours, become the epicenter. And then there's the possibility that it could be a university system, such as Nebraska. How would you equate them now as alternatives?

R.B.: I would offer, Bob, that the one that works is the best. Where you have a university that's big enough and smart enough, with high enough commitments -- nothing less than the vice-president for academic affairs who can pound the president into believing in it -- and where you get that university to roll, that's it. This state is small, and we had a new telecommunications plant, so we became the obvious ones to try to interest others. But anywhere it *happens*, I think the agency doing it is the best agency to do it!

Q: Do you have a formalized Council of Deans?

R.W.S.: Nothing is formalized. You get in touch with a college first through the President and usually he assigns someone. In our case it's usually the Dean for Extension. He's invited to the meetings, and he functions as your coordinator.

Q: You've got 17 colleges in your group. Does that mean you've got 17 Deans?

R.W.S.: That's right. They don't all come. Six or 8 of the 17 belong to the ITV group for teacher training. They've never been thoroughly integrated into the College of the Air operation. So when we have a meeting we invite 10 or 12, and 7 or 8 show up. If you have a free lunch, you get 9 or 10; if you don't, you get 6 or 7.

Q: What are their roles in management of College of the Air?

R.W.S.: They tell us what courses they want on the air. They develop a list of six or eight courses, and we're in the process of making them. Also, they go down the list of courses available from the outside and say, "Yes, our people want to look at this," or "No". They are my contact in the college. We feed them the outline of a course and quite often they say, "Yes, this is exactly the course we're teaching."

Q: Did a group of deans decide with you several years ago that "We ought to do these courses"?

R.W.S.: They are the basic courses that have the highest registration in the first two years of college . . . I've been with these guys for three years now, and it's a real ad hoc thing. You call up a fellow at a community college and say, "Jerry, they've got this psychology course on the West Coast," and he says, "Is it better than the last one we saw?" and I say, "Yes," so he says, "Go ahead and run it." That's all there is to it.

Q: Do you need to get a quorum of the others to approve it?

R.W.S.: I've never really organized it that way. I've tried not to. Nobody's ever decided how many colleges have to approve of it. Practically speaking, though, I would not run a course that one of the three colleges in the Baltimore area are violently opposed to. They have the most students. I'd lose a sizeable proportion of my enrollment. I quite often will clear with those three schools and go.

R.B.: We decided we had something to try for originally when Dick interested three large community colleges in the idea. So the first phase was with these three leading *community* colleges. To date, those three have kind of a charter membership. When one of them speaks, it will carry more weight than a little school.

R.W.S.: There is no constitution. There is no such thing as the Maryland College of the Air. There's no Director, there are no officers.

Q: Is there an advantage in this, or disadvantage?

R.W.S.: Oh, I think it's an advantage. We have a total of six schools in three political subdivisions, with three different budgets and three different school systems. They share teachers.

R.B.: That's a political victory to get them to do this.

R.W.S.: You do it by never putting anything on paper. You say, "Whose

turn is it to pick up a course?" And a guy says, "Well, I didn't have one last semester. I'll take two teachers this semester."

Q: What does that mean?

R.W.S.: He pays the teacher. That teacher administers the course for the students in all six of those schools. He is their teacher of record. He's the guy they call. Now if we started to put all this on paper and tried to ratify it through a Board, it could get sticky. We'd never get it done . . . The teacher of record handles the tests and has the tutoring sessions two or three times a semester at the designated study centers. So the student can go in and talk to him face to face.

Q: How did this evolve?

R.W.S.: Like everything, it evolved the hard way. We started out by staffing every course on every campus. But the colleges in the smaller population areas, with fewer students, they couldn't afford it, so we changed everything. The only reason we did it the other way at the start was because we were scared of the teachers. We thought they'd fight us . . . At the beginning, we took the rental charge for a course and divided it among the three colleges that were with us. But now, they each pay us $20 per registered student.

R.B.: They're charging their going rate. One school charges $140 and another $160, but they give us $20. They pocket the rest, and they didn't have to light up a classroom.

R.W.S.: Out of the $20 per student we pay the rental charge for a series. We're coming out ahead, right now, except that we have advertising charges and indirect costs, like my time.

Q: One thing you've been able to do has been to cut back on the number of teachers involved. As you go into the fall of 1974, you'll have one teacher of record per course.

R.W.S.: That's right . . . We suggested at a meeting of the Deans that they let us hire the teachers. They could name one of their guys. Then we'd service the whole state. But they didn't want it. They didn't want to give us control of the teacher. They wanted to pay the teacher.

Q: Again, what are the responsibilities of the Deans?

R.W.S.: In effect, they select the list of courses from which we choose. They approve, or get approval on their campus, for the content of the courses that we purchase or produce. When we go about producing a course, we hire a teacher, he works out an outline, and I get that outline ratified by the teachers from three or four of the schools. We do not get a course ratified by all 17 schools. You'd never do it. The credits within the State are all interchangeable, but still we go about getting the outline ratified by teachers selected by the Deans . . . If you get a recalcitrant teacher -- I've only lost one of these battles -- well, we had trouble with

one sociology department. I asked the Dean what it was going to take to buy these guys. And he says, "Oh, they come cheap. It's going to cost you a lunch." And they complained and pontificated, but eventually they bought the outline.

Q: Chronologically, when did the Deans meet to plan the Fall of '74?

R.W.S.: They actually met in January. But there's another step here. About two weeks before the semester begins, we convene all the administrators, the Deans, and teachers who will administer the course locally. We meet at one of the schools; the lunch is catered. We bring in the on-air teachers from the out-of-state schools for the TV courses, and if the course is one we made, then that teacher comes. So the teacher of record meets the on-air teachers. We'll have this meeting just before the fall term, and I'll try to double up by getting the Deans to talk about February. We rest courses three semesters, and then repeat them. If you ran them every other semester, you'd run out of students.

R.B.: Meanwhile, the rubric "teacher training" has been divided after a lot of intrastate hassling into two categories -- credit and noncredit. The State Department of Education feels rather proprietary about teacher training. After a while it got to be a mess. The end result is that teacher training comes in two packages -- one bears credit, in which case it is part of the College of the Air, and where it does not bear credit, certification is involved.

Q: Of the seven courses you had on in the spring of '74, four undergraduate and three graduate . . .

R.W.S.: We actually had nine on, because we also deal with University of Maryland's Open University program. Then, in addition there were noncredit, in-service courses, run by the State Department of Ed. But those weren't part of the College of the Air . . . We try to make it as simple as possible for the colleges to function with these courses. The four courses we offered administratively fall outside their normal procedures, and anything that falls outside the normal procedures on a campus, God help you. So we hold meetings for the Registrars to say what will happen. We prepare a sheet they can give out to every registrant that says who his teacher is, where his class is, what his texts are. We also deal directly with the school bookstore, so the books get ordered. You try to plug every little gap. This requires us to do a lot of detail for which there's no compensation. But because we do their work for them, it makes it extremely easy for me to get what I want out of them.

Q: When would you have taken this step chronologically with the Registrars?

R.W.S.: We only meet with them once a year. We met with them in February 1973 when we had a very poor registration. We listened to their complaints about having to handle these courses, and we took notes to try to make some changes. This February, we had our best registration ever. If our numbers fall off in September, I'll get 'em back together again, and try to find out why . . . We work directly with the bookstore guys on campus. They don't fight you -- they're delighted somebody's doing the legwork.

R.B.: Dick provides an honest-to-God savvy about basic university functioning, so it's not like he's stumbling into the fact that books are late. So this higher-ed savvy is *basic* in making it go. And each term somebody he trains has got to run down every detail, but that's where Dick's contribution has made this a success where the others aren't . . . Dick found one term that the professors and registrars were actually discouraging the kids from registering. When we talk about the recalcitrance of teachers, we're not kidding.

R.W.S.: On every campus where you try to sell television, there are going to be professors sabotaging you, no matter how good your course is.

Q: You see no way around this?

R.W.S.: No. As long as you have freedom on the campus, the President can't come down to the history teacher and tell him to stop bad-mouthing the courses.

R.B.: The very ubiquitousness of the open-university game . . . the fact that the worker can get a degree will separate him from that student who's registering in the gym, so that his face-to-face confrontations will be with the teacher of record, or an adviser, more often than with a faculty member who can steer him either to TV or no TV. Dick has had students who are workers and they love it. It's not big numbers, but a beginning.

R.W.S.: Catonsville Community College is always doing studies. They've done one that shows a net gain out of the students. They have recalcitrant teachers there bad-mouthing us. Fortunately the administration likes television . . . They questionnaired every student who'd taken a TV course at their college -- maybe 250-300 students. A very high percentage of them had come back and taken additional courses on campus. So now they're saying that TV is a recruiter.

R.B.: Maybe for the person who's been afraid of education for many years, he's not taking as big a chance if he sneaks to his television set and then tries it out the first term. And then he gets a B-plus or an A, and then he screws up his courage to go ahead and register for the degree or whatever he's after . . .

Q: All right. Now, we've talked about the procedures involving the Deans' council . . . The matter of promotion: Is it the burden of the Maryland Center to do the promotion for the College of the Air courses?

R.B.: I would prefer that it's the joy. We promote it. The name "College of the Air" we used just to give this thing a feeling of tomorrow. There has been no piece of legislation, nor has there been an edict from my commission nor from anywhere else saying, "We will now move ahead with the College of the Air." You just kind of creep along and make a fuss when you have a chance, and get some publicity when you can. That is really an important aspect of getting these things going.

Q: But the mechanical function of getting out promotional brochures, and so on, has to be done by the Center.

R.B.: That's right.

Q: Do you expect that the 17 collaborating colleges will help by billboarding things for you?

R.B.: Ultimately. They post notices now, and they're doing what they can now.

Q: For the student, what must he do to register?

R.B.: He registers at the participating college of his choice, as he would register for anything else at that college.

Q: He could do it by mail, or must he go in person usually?

R.B.: He could do it by mail. We receive dozens of telephone calls around registration time each term, right here, because we promote College of the Air on our air. (And this was after some tries at newspaper and radio ads.) We finally realized that those who are watching can get a UHF picture and they are probably the best target audience for noncommercial commercials. And we get our best pull from our own on-air spots. Therefore we get a lot of registration questions. We say, "Where do you live?" Then we find it on the map and we say, "Call Irv Schleeb, Registrar, so-and-so college." And after that he's on his own.

Q: Can we talk about the cost to the student?

R.B.: He pays standard tuition as charged by the college at which he is registering.

Q: So that it may vary, although they are almost all public institutions, are they not?

R.B.: Correct. But since they come under different political subdivisions, their tuition charges are not necessarily the same. I have an idea it's a very competitive little game, though, because the counties are so close. If one school were markedly under another, you'd see what would happen . . . When we started we simply had the colleges chip in and pay for the rental of the lessons from Chicago or New York or wherever it was. And we provided everything else as an indirect cost here. Now we take a piece of the action.

Q: And the $20 for a registered student helps you pay for rentals of series produced elsewhere?

R.B.: Yes. If we had a real cost audit done, Dick's time, some printing that we sneak out of another budget, and all this other stuff, I'm sure it would be a loss leader, and a valuable one.

Q: Right. So at the moment it would be difficult to arrive at an aggregate cost to the Center for what College of the Air costs it in calendar year '74.

R.B.: It is such an integral part of what the Maryland Center for Public

Broadcasting is and does, that to take it apart or to isolate it, to try to determine cost, would be impossible.

Q: Have you had an opportunity to do anything on the demographics of the students?

R.B.: No, we have not undertaken that kind of person-by-person research. But one professor did it once and as you would expect, the students were older, and more serious about their work.

Q: What, in general terms, do you try to do in respect to allocating broadcast time to College of the Air? Each program is run about twice, I believe.

R.B.: Right. Once in the early morning, once either in the supper hour or late at night, 10:30 or 11:00 p.m., and, if we can, once in the weekend. Not always. That gives us the best possible spread, considering that we provide other services, too.

Q: So that with some of the courses they might even be on three times a week?

R.B.: Yes. Now, we're under great pressure from some of our colleagues to air other things at those times. Specials. And we can't because we are committed to registered students in college courses.

Q: Can you tell me what percentage of the broadcast schedule is represented by College of the Air?

R.B.: I'd say close to a fifth.

Q: The additional requirements, aside from viewing, for the student who is registered for credit? He has other things that he must do?

R.B.: Yes, and in a way it depends upon the course. But basically he has some kind of workbook, he has a professor that he can talk to. In most courses he has that professor, plus a talk-fest or discussion group, and of course, he has to perform on an examination. And in virtually every case he has at least one paper to write. It's remarkably traditional. The one thing that we are doing is letting them stay home for this lecture instead of going to class for it.

Q: The phone phase of it, the interaction, has it become uniform that each of the courses will have a teacher of record who has a telephone hour?

R.B.: Yes. And that teacher of record, as Dick said, comes from one of the participating schools on a kind of an informal basis.

Q: But he doesn't get anything from the Center for doing that? It's an arrangement among the cooperating colleges . . .

R.B.: He just continues to earn a salary from the particular college.

And perhaps they give him one course less that term. I would tend to doubt it. I think this is still small enough so the guy just may go ahead and say, okay, I'll do it.

Q: And have you had any indication of whether it's a well subscribed aspect of the service?

R.B.: Sure.

Q: You've had a very good year in terms of credit and registrants.

R.B.: Yes. In number, we're over 700 credit students. We started out with something like 200. And 700 people aren't very many, perhaps, until you put them in a classroom. Often it turns out to be quite a lot of people. We know that they perform generally better than the classroom student . . . Emotionally, we find from those who try it, that it's perfectly acceptable. It turns out to be remarkably like the education we've always known. It's hard, it requires paying attention, it's sometimes painful. Instead of sitting in a classroom, though, you're sitting at home.

Q: To your knowledge there's no sense of deprivation as far as the individual at home is concerned, no sense that he lacks an intimacy, for the teacher isn't there?

R.B.: No. I don't think there is that deprivation. However, if somebody were to say that they wanted to have a College of the Air through which someone could go all the way to a degree, I would prefer using the College of the Air *for only a certain percentage of work*. After all, it's important to go through 15 weeks, in certain types of courses, with at least eight other people, to hear the little fat lady talking about her belief about English Literature and the little gentleman who never says anything, and when he does he stutters. I think that's important as part of education. But you can do, maybe 30, 40, or 50% of your work at home, just saying, damn it, I'm going to understand this if it's the last thing I do.

Q: There's the question of course production. While we touched on it briefly, the procedure, I gather, is that the Council of Deans will decide that a certain course should be done. Is it the Center's prerogative, then, to find a man to do it?

R.B.: No. Timetable aside, actually they don't. We are going to produce two a year, at about $40,000 each. So there's always one in the studio, there's always one getting ready to go in the studio, and there's always one under exploration and early script stage. So, you see, we're at least three courses ahead. It isn't just, "well, what will we produce tomorrow?" The Deans decide what courses will go through that calendar. They will decide, with Dick; and, by the way, Dick takes a leadership role in these meetings. He calls the meetings and he says, guys, here's what we have to decide. One of the things they will decide, for instance, is how big the committee should be for a given curriculum.

Q: Let me interject and ask, by whom are those committee members paid?

R.B.: They are paid by the Center for those consulting hours. It's not really all that much money. But we want them to feel they're doing a job and not just going to another conference.

Q: And out of their work comes an outline.

R.B.: Yes. And then, sometimes we hold auditions for the on-air professors. You usually get four, five or six who want to get into this, who have heard about it and have called. Sometimes there is nobody, and you have to scratch.

Q: In which case the scratching is done by . . .?

R.B.: Dick and the Committee -- and the producer who by that time is in on the action. The final decision is the ultimate responsibility of that producer, who is assigned by the Center. The producer is smart enough to know he'd better take Dick Smith's advice seriously and get Dick Smith on his side, no matter what. And both he and Dick Smith are smart enough to know that if the three or four guys on that curriculum committee are not interested for some reason in a certain person, they'd better abandon that person or live with a specific kind of a problem. So far, in three courses we've done well. It's though to pick people -- especially before the fact -- but we have done very well, considering the variables. Then we get that teacher, paid by us, to take a term off and develop the actual course and do the studio work. In some cases that will be the same teacher who does the scripting. And in some cases the same person will do the guide. But it is not necessarily all the same person. Because in one case, for instance, we might use an actor for the on-air stuff.

Q: So far, in the courses you've produced, though, you've used actual teachers.

R.B.: Actual professors of those subjects.

Q: And the three courses you've done were . . .

R.B.: Biology, English Literature and Sociology.

Q: Now there is that point, then, in your procedure where decision-making comes to the producer assigned by the Center for the course. With the qualifier that he has to relate to both the Sociology committee and Dick Smith.

R.B.: Right.

Q: By taking over a television teacher's time for one term in order to do the studio phase, that becomes a budget item for the Center?

R.B.: That's correct. That's part of the $30,000-$40,000 cost.

Q: We're talking about somewhere in the vicinity of $40,000 for 30 programs that run 45 minutes each?

R.B.: Right.

Q: And that cost doesn't include the Center's participation, in the sense that Dick Smith's time is not prorated?

R.B.: That's correct. All of Dick Smith's time is in one division. The $40,000 is in the programming division, which is another one. Script writing is included, I think student guide is included in the 40, and payment of the script writer, and of the on-air talent. Dick Smith's development time, and the incidental costs are somewhere else.

Q: All right. So it becomes possible to prorate that $40,000 across the 30 program units to see what your average cost is. The difficulty with that is that it doesn't reflect the real . . .

R.B.: All the people, directors, lights, the rental of the studio . . . That's not included. So you could probably call it an $80,000 project. In the 40 is the lumber it takes to build a set. But the set designer's already here and the carpenters are already here.

Q: The out-of-pocket cost. That does get you, though, a videotaped course, a guide . . .

R.B.: And over a 10-year period, with X students per term, just think of what education is going to cost or not going to cost.

Q: Now, tied into this is the question of the Center's philosophy on design. We certainly see with the British Open University and the State University of Nebraska project an intensification of the design process. There are a lot more people now being hooked shoulder to shoulder in a procedure much more intricate than when I was producing. How do you feel about the values and the disadvantages of that?

R.B.: I think what you're describing is great. A year's research, large committees, then the piloting of a certain number of programs or one program, field testing, and a hefty development phase. In Maryland, though, we are working in a political-pragmatic mold. Within the bounds of academic and moral integrity, what can we do to help higher ed and help students? And when we get a teacher who's been teaching it in the classroom and willing to give this a try, we roll. There are some things to clean up and change, granted. There are curriculum committees. But that whole year that C.T.W. does and S-U N might do, we don't do.

Q: For the time being then, a more concise approach to course design seems to be where you think you should be.

R.B.: We call it the "Quick and Clean Method".

Q: Clearly, the College is in effect a loss operation for you.

R.B.: Right. But so is a production of a series called "Maryland Weekend," which we produce. So was "Hodge Podge Lodge," before its extra-state

distribution ended up paying for it. So are all the other things on which we spend the money appropriated by the General Assembly or given to us by the Corporation of Public Broadcasting toward providing services for Maryland. This is a vital service and no different from news in depth and a documentary exploration of the hospital scene, or the General Assembly or the covering of a symphony. This is higher ed. It's very important that we do this.

Q: I'm wondering if we could just insert what the cost is in your current fiscal year.

R.B.: In the fiscal year just ending, and this would have to be a gross estimate, I would say that $150,000 has been put into this project -- out of a budget of $4.5 million. It would seem to me that there would be some among higher education enthusiasts who'd ask, "How come we're getting so little of your budget?"

Q: Let's talk a bit more about the option which the Chicago TV college has long since brought into being: the actual offering of an Associate in Arts degree through television.

R.B.: Or Bachelor's. That would take the dubbing of the Maryland Center not only as an educational institution but as an accredited academic institution with some very strong academic properties. I would like to see it happen in the state, but by then this institution, I hope, will be the Maryland Center for Telecommunications. And the College of the Air division or department of that telecommunication center would by then, I hope, have ties so official with the University of Maryland and perhaps the state colleges that it would seem quite commonplace. If it doesn't happen, though, it won't bother me.

Q: You had said earlier that you didn't feel at this point that it would be a good idea for a student to get a complete degree through television and home study.

R.B.: First, I don't think it would be a good idea for the Center to be accredited now because we're threatening enough to existing institutions. Secondly, I don't think it would be good for a student -- talking completely in limbo now -- to earn a college degree through 100% solitary effort, plus a few phone calls. I'd have to go along with those who feel the warmth of education -- the human warmth of education and human transfer -- is part of the experience.

Q: Do you see the role of the Maryland Center shifting in the next year or two as the pivotal organization? Do you anticipate any different kinds of responsibility within the framework of the College of the Air? Any changes that you want to institute?

R.B.: No, I would say not. Right now we would like more students, more enthusiastic colleges -- or the same number with a little bit heavier input.

Q: In a letter, Dick Smith talked about the importance of execution rather

than innovation. And he went on to emphasize that one of the objectives was to make it as easy as possible for everyone to administer. Clearly this is one of the ways you can make it more attractive to the institutions -- for the Center to simplify all the processes that are involved. Is it fair to infer that you plan to -- if anything -- increase that service as it applies to new techniques for facilitating registration?

R.B.: Yes. There are two issues there. On the first one there are two things we can do with television. One is to do things that we haven't been able to do before, and the other is to do better the things we have done before. We've chosen the latter with the College of the Air. We don't pretend to give you a new way to learn. We give you the old courses taught more efficiently, we hope, than in certain musty classrooms. And here it is in your own living room. And we don't pretend to say if you stand on your head and put the speaker under your pillow, it's a whole new game. It's the same old thing with a new way of distributing it . . . The other part of the question has to do with the services we provide for colleges. And the college is apt to say, "Do we get any publicity? What will it cost us? How much manpower must we put in in order to play your game?" And if we can say, "You get a lot of glory, you get some money, and you don't have to put too much bureaucracy into it," that's when they want to cooperate more, and it's very understandable.

Q: Let's talk briefly about the question of television teaching talent. What is your own view about the so-called "talking face" school of production?

R.B.: It depends upon the face, Bob. One of the things it's always fun to do is to say, "Is an actor better than a content expert, or is the talking face worse than great visual techniques and split screens and blurry transitions and green goblins?" It simply depends on what you're teaching, to whom, under what conditions, with whose budget. James Bostain is a terrific talking face. I know of a few content experts who hardly have a grasp of the language, insofar as oral communication is concerned, and they're geniuses in their own ways. (Mr. Einstein was not a good teacher, I'm told.) When I'm teaching third-graders, I'm apt to build a little more color and music and fun than when I'm teaching adults. And when I'm teaching computer technology I bet I could put a talking face there as long as I said at the end of every program, "You're apt to get a better job when you complete this course."

Q: So that the talking face per se shouldn't be ruled out.

R.B.: Some of them are great.

Q: What is the Center's feeling about bringing courses in from other places, as opposed to producing your own? You mentioned the fact that you're producing two a year.

R.B.: We consider that a heavy load, given the cost. It takes a full-time producer doing just that and nothing else. In the start, we brought them in from Chicago and New York. The ones we produce are more modern. They're in color, and they have certain advantages because they're new.

We would like to share ours with others. We would hope S-U-N and Kentucky and anyone else would share with us. We would look for a college ITV clearinghouse of some kind. Many of these basic courses are so universal, and we should get into the trading game.

Q: So that, if anything, there's a need for a sophisticated, hyperactive brokerage . . .

R.B.: Excellent.

Q: As you go forward with this, would you have any hope about increasing the student's opportunity to interact with teachers or with other students?

R.B.: It depends upon the course. I think some courses require a lot of discussion and the listening to other opinions. I don't need it in teaching and learning algebra. I think it's essential in some of the softer stuff. Even in some of the arts, I'd want students together more than in other subjects. So there's no universal answer.

Q: No, but it would be desirable, if I read you correctly, to try to increase student contact with other students, depending on the course.

R.B.: Depending on the course. I don't want to be on either platform -- television doesn't turn out automatons. Nor do I want to be on the other platform which says if you never see another human, you can get real educated. Somewhere in the middle is what we're after, and in today's market there's not enough television.

Q: Let's talk about the matter of personalities as they fit into the structure of something like the College of the Air, the people who are involved in formulating it and bringing it off, managing it. It seems to me that it becomes absolutely essential that people of real skills do this sort of thing, or else it won't get done.

R.B.: Yes, I think we've discussed before the force of a large personality. All of our business leaders, our great politicians, our military leaders, and our great artists -- when you get to meet them they are generally not wishy-washy personalities. When one is going to set up this kind of thing, I believe the political resistance to it -- political in the institutional sense -- is so terrific that you need first the prime-mover -- that is, the budget and power -- administrative power. A big personality. Not just somebody who waits for a knock on the door or puts out a brochure and expects that to do the trick. Then you need the kind of person Dick Smith is: somebody who's so savvy about how colleges work that none of these things about bookstores or dilatory professors comes as a surprise. And thirdly, the teacher at the base of the television course may not be on the air. But at the base of any project of this kind there's got to be a good teacher.

Q: You've mentioned before that this is, in a way, a political process.

R.B.: Yes, it's a political adventure. We're trying to get institutions

that have not historically worked together to work together. To get those institutions to shake hands and not be too provincial or jealous is a political exercise. That's the biggest hurdle in setting one of these things up.

Q: People express concern about the acceptance of courses by institutions. And that has of course built into it the question of credit transfers. Have you found that acceptance is a major difficulty?

R.B.: It's a difficulty, but it's not a major difficulty. Remember, we're in a small state where we have a lot of institutions, but they are somewhat close, if only geographically, and they are not too diverse in educational standard. I think we are entering an educational era in which the demand for low-cost education will be so great that any institution will be willing -- more than in the past, perhaps -- to give credit for something that is available. It's cheap and it's available. And reasonably good, of course.

Q: There has been another problem area mentioned. It has to do with access to television, the student's ability to find the course on television when he needs it or wants it. There is a necessity for a fixed schedule in broadcasting. Does open-circuit broadcasting pose inherent problems for the individual, when in point of fact you are trying to make it easier for him?

R.B.: I think that the same argument applies to K through 12 classroom television where we're now in an interesting little baby stage of education via telecommunications. So these fixed schedules and access are problems; but this is, to my thinking, the first step toward the day in which the student will dial up from *Computer Central* the lesson he wants at his place of lesson receipt. So while I agree that that is a problem, I offer that we should go full steam ahead in making courses, getting them on tape, getting people accustomed to learning in different settings and getting accredited through institutions that they don't happen to be attending at that moment, and putting up with the difficulties of schedules.

Q: Any problems as far as you're concerned in motivating the public to recognizing that through television they can get a more formalized education?

R.B.: Yes. I think it's a problem, but we don't pay much attention to it because it would involve a heavy mass advertising campaign to try to beat it. To me, the existence of a successful project can't help but attract more and more attention.

Q: The matter of transferability of credit seems periodically to be a hazard. Have you found there are any difficulties with that?

R.B.: Well, sure, Johns Hopkins is not likely to accept a course from Zilch college. Here in Maryland, Johns Hopkins is just about the state leader. But that'll happen without television. As with so many other things in educational television, we find ourselves facing an old problem and we tend to say, "And that's why television won't work." Well, we've

been struggling with credit transfer problems without television. So, the addition of television really doesn't change that too much.

Q: And are you finding that it's freeing up at all?

R.B.: Yes, in Maryland you get those deans together and say, "Look, if you'll all give credit for this course, you're going to make the world a lot easier." The General Assembly in Maryland has recently passed a law that helps colleges exchange credits a little more easily. If I'm a dean and I see that *you're* a reasonable dean, then your Zoology course must be basically the same as my Zoology course. And after my Zoology professor says your Zoology professor's really not a bad guy, and they get drunk once together, all of a sudden we can exchange credits. And that's the political thing that I keep talking about.

Q: Inevitably we talk about the question of faculty roles and their resistance to television. I've been wondering whether there would come a time when the young faculty member who was raised on "Buffalo Bob" and "Captain Kangaroo" and maybe Pinky Lee wouldn't feel that television really wasn't that bad. What would your forecast be?

R.B.: I would agree with that, and I'd also say the demand for education is going to be great. Our colleges and universities are becoming either too big to educate personally, or too small to be economically viable. We have empty dorms, and we have some marginal teaching that's getting worse. Our standards are dropping. It's just a very sorry educational scene. I think the problem of resistance will evaporate because people will *demand* more and better education. They won't care where they get it, how they get it, or under what conditions. And that's why we in education should be digging those trenches now. We should be producing those courses, storing them, sending them through cable, putting them on cassette, putting them on the shelf, and just getting ready for that revolution when the people say, "Enough! I want to learn basic grammar and you better give it to me or I'll get somebody *else* to be superintendent of schools."

Q: Meanwhile, in terms of accommodating the teachers who have a part in media materials preparation, how do you feel now about extras -- whether they should be given a piece of the action?

R.B. Yes, I have strong feelings that are maverick, I guess. The true teacher is more like a fine artist than he is a consultant to a management team. The real teacher wants to teach. If he's being paid $12,000 a year, which is not a lot, it would seem to me that he'd be just as anxious to spend that $12,000 worth of time making it for television. If we play it for three years, I don't think he should get an extra $2500. I think he should be very proud, and we should all give him a good round of applause, and he shouldn't worry about being out of work because his tape's being played somewhere else. I would give him the right to change it, if he thinks his stuff is out of date and he realizes something new has been invented. But there is no "action" in education. Nobody is making that profit that he should get a piece of. And it seems to me to be a vestige

from the commercial world, where there's the suspicion that management is taking home 6% of the gross and the talent is not getting anything. We in education are here to help people, so let's get on with the job.

Q: Would you see that the faculty, in time, should be given the same kind of peer credit from television recording as they would from publishing?

R.B.: More, yes. Absolutely! Publish or perish -- somebody gets advanced to full professor partly because he made two television courses last year? -- I think that's absolutely right. It takes a hell of a lot more work than writing a textbook.

Q: In the category of problems the final one would have to do with rights. In the case of the College of the Air in Maryland, the Center has the rights to the courses?

R.B.: Yes.

Q: Has there been resistance to this?

R.B.: No. We put up the money. Who should have the rights? The piper.

Q: And in the instance of a series that goes out to Great Plains National Instructional Television Library and is leased by them to other places and there's a royalty, the royalty would then come back to the Center?

R.B.: Yes. We have a deal with each professor. We say in the contract, if this product is ever used for a profit, separate negotiations will take place in which you share. Until that time, any money made by an institution for this will be fully accountable to you, Mr. Professor, but will be plow-back money -- money for expenses already incurred.

Q: So that on a use outside the state, would you consider that to be profit-making?

R.B.: No. I mean commercial profit.

* * * * *

Q: Let me ask you about the response to "Man and Environment" in Maryland, Dick.

R.W.S.: We tried to sell it to Salisbury State College. I was not interested in it. One, I don't think it's very good, and it presented some problems to us in that, to make it at all useful, you almost have to produce 15 local programs, panel shows. And we didn't want to do that. But Salisbury was interested in using it internally on campus. The school looked at it and decided that there wasn't enough in "Man and Environment" to make it worth their while.

Q: Let me switch to another topic. SUNY, when it decided to do a University of the Air, had a director for the project who was part of the central administration.

R.W.S.: That's right.

Q: Now, in your case do you have a director?

R.W.S.: No, we don't have any officers. As far as the state or any institution is concerned, there is no Maryland College of the Air. The only way that exists is on our press releases and our catalogs. It's never been authorized by anybody; it's never been approved by any board. We simply went to the colleges, enlisted their cooperation, and began working. This means that there is no formal director, and when we sit around the table, we sit around as a group of equals with a sort of comaraderie, rather than any organization.

Q: And the council of Deans would recognize that you yourself have a staff role at the Maryland Center, but it is not strictly director of College of the Air?

R.W.S.: That's right.

Q: Well, that's a very important point to make, because it's part of your same pragmatic approach. And do I infer correctly that there's no immediate plan to give this a more formal structure?

R.W.S.: No. We just intend to enlarge it with some additional schools as we get increased coverage in the state. But at this point we see no reason to change its mechanical function.

Q: Let me talk about the fall of 1974. Tell me what changes you anticipate. For example, let's start with the courses. How many undergraduate courses will there be?

R.W.S.: There'll be four. Ed Psych, Sociology, American History, and Astronomy. That's a SUNY course, by the way.

Q: Tell me about the Ed Psych. Where is that from?

R.W.S.: Chicago.

Q: The Sociology is your own?

R.W.S.: Right.

Q: The History?

R.W.S.: Chicago TV College.

Q: Will you have three graduate or teacher-training courses, in addition?

R.W.S.: No. Not this year. Ed Psych is a teacher-training course.

Q: I see.

R.W.S.: But the teacher-training courses of the type we had last year will

not be around. We will also air two Open University courses for the University of Maryland.

Q: Which ones?

R.W.S.: Urban Development, which is a junior-senior level course, and the Humanities course, which is their most successful one.

Q: That's their foundation course. Does the University pay you a per-student fee on that?

R.W.S.: No, we do that . . . We take the position that we work for the same man -- Governor Mandel. We're trying to service the same people.

Q: So, Dick, in all you'll have six courses.

R.W.S.: We'll have six courses on the air, that's right. And we should enroll somewhere on the order of 700 students in those six courses.

Q: That's for credit, now.

R.W.S.: Right.

Q: Any guess as to how many additional students for noncredit -- the auditors?

R.W.S.: Well, we can only tell by the number of study guides that we sell. We'll probably sell about 75 study guides and additional study guides in each of the four courses, which would give us another 250-300 students.

Q: And that costs the auditor two dollars . . .

R.W.S.: Well, it's going to be four dollars.

Q: I see. Will you be increasing or changing your hours on the air for College of the Air?

R.W.S.: No. They'll be basically the same time slots.

Q: Do you have a gauge as to how many colleges might be cooperating in the fall?

R.W.S.: Yes, we know there'll be 11.

Q: A figure has been used: 17.

R.W.S.: The reason for that is that when we were running those graduate teacher-training courses, seven state schools became involved. When you add those teacher-training things, you get a different mix of schools, and that boosts the total.

Q: Dick, a lot of people will be waiting to see the quality of the materials

that come from the State University of Nebraska. Do you find that there are material distinctions between what you have done and what they are seeking to do?

R.W.S.: I would suspect that their graphics stuff will look an awful lot better than ours, because they've got the money to spend on it, and we're simply multigraphing manuals. Their supportive material will be considerably better. The on-camera stuff, I can't tell. I haven't seen any of it. All I've seen are a few samples of their accounting course, and their one example, which they refer to as a straight lecture, is no different than ours; and their acting version, which they discovered didn't sell to older students, I didn't like at all. We just don't attempt that sort of thing. I've been hearing about S-U-N for three years and I've yet to see a student. I don't think they are sure of themselves out there. As opposed to Chicago, which goes cranking along in a very methodical, unexciting way, but Chicago produces courses and enrolls students. To me, that's the name of the game.

* * * * *

Q: Let's finish up by asking a question as to how you feel college television (as I'm calling it) would rate among the Center's priorities today and tomorrow?

R.B.: Very high. I find it easily understood, with an ever-increasing market, an acceptability, and it's a lot easier to sell than some of the softer, less educational stuff. We need to help a lot of people -- business and industry training, college training. Let me put it this way: the more formal education is a very high priority to us at this particular institution. Not to the exclusion of everything else, but just of high priority.

Q: With no evidence that in the immediate future it will change? That it will lessen?

R.B.: It will strengthen, if anything.

Q: Rick, there are a number of people around at stations and in institutions who are thinking about how do we reach these alternative audiences as a furtherance of nontraditional study. Television is in 96% of American households. What kind of general word would you have for those people who are wondering about television, about the whole tired range of questions: will television teach and so forth? What kind of summary comment would you make for the newcomer to this education through media?

R.B.: I would suggest that the newcomer take a lesson from history. Don't even start unless your president or your chancellor and the board or trustees have said, "This is the direction for us." Those decisions are made at the very high levels. If the top's not solid, then forget it. As for, "can television teach?" there's a question we have to do away with. Television can *not* teach. Teachers teach.

APPENDIX III -- Public Television Poll

* Postcard instrument sent April 9-10, 1974, with covering letter.

* Mailed to: 149 public television station licensees.

* Returned : 144 (96.6%)

* Questions and Results:

	Yes	No
1. We are now broadcasting college credit courses on TV.	77 (53%)	67 (47%)
Community Licensees	30 (38.0)	22 (32.8)
University/College Licensees	27 (35.0)	26 (38.8)
State Authority Licensees	9 (11.7)	7 (10.4)
School Board Licensees	7 (9.0)	9 (13.4)
Regents or State Board of Higher Education Licensees	4 (5.2)	3 (4.5)
2. We produced (some) (all) of the courses we are now televising. (Ten licensees reported they had produced *all* the courses they were then broadcasting.)	41 (53.2% of 77)	33
3. We are designing and producing courses, but not broadcasting them at this time.	41 (28.4% of 144)	
4. We would like a summary of the survey results.	132	

* Of the top 15 licensees by 1973 budget, four were not broadcasting courses at the time of the survey. Two of the four were state networks, one was a community station, and the fourth a department of education licensee.

* Twenty licensees indicated they were broadcasting courses and designing new ones at the same time.

* Twenty-one were not broadcasting, but were designing and producing courses. Fourteen of these are university or college licensees; four are licensed to community groups, two to state boards of education, and one to a state authority. One can infer that many of the fourteen make use of closed-circuit distribution systems on campus.

* Among those not currently broadcasting courses, seven indicated they either had done so previously or hoped to in the future:

Did so in fall, winter qtrs.	1	Preparing open university	1
Have broadcast in the past	1	Proposing to design courses	1
Hope to, in the future	1	Prevented by lack of funds from offering courses	1
May be doing so in a year	1		